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AFWAL-TR-81-3162
Part I

F-111E FLIGHT VIBRATION AND ACOUSTICS TEST PROGRAM

PART I
TEST INSTRUMENTATION, TEST PROCEDURE AND DATA REDUCTION

Structural Vibration Branch
Structures and Dynamics Division

April 1982

Final Report for Period 25 July 1978 - 30 April 1981

FLIGHT DYNAMICS LABORATORY
AIR FORCE WRIGHT AERONAUTICAL LABORATORIES
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This technical report has been reviewed and is approved for publication.

John T. Ach

JOHN T. ACH
Technical Manager
Data Analysis Group

Charles E. Thomas

CHARLES E. THOMAS
Chief
Structural Vibration Branch

FOR THE COMMANDER

Ralph L. Kuster Jr.

RALPH L. KUSTER, JR., Colonel, USAF
Chief, Structures and Dynamics Division
Flight Dynamics Laboratory

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A comprehensive test program was conducted on an F-111E aircraft for the purpose of collecting dynamics data, primarily vibration and acoustic data, at selected locations throughout the aircraft under test conditions within the operational envelope of the aircraft. Data were recorded from 133 accelerometers and microphones at 60 test conditions including gunfiring passes. In addition, flight and engine parameter data were also recorded. The test program is documented by presenting the details on the test instrumentation, transducer locations, test procedures and flight conditions. Test results are limited to overall and peak root

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20. ABSTRACT (Continued)

mean square (RMS) levels which give a coarse indication of the dynamics environment of the F-111E. Detailed test results will be presented in the parts of this report which will follow.

FOREWORD

This report documents an in-house effort conducted by the Structural Vibration Branch, Structures and Dynamics Division, Flight Dynamics Laboratory, Air Force Wright Aeronautical Laboratories, Wright-Patterson Air Force Base, Ohio.

This investigation was conducted under Flight Dynamics Laboratory Project 2401, Vibration Prediction and Control, Measurement and Analysis, Work Unit 24010401, Dynamics Environment on Current and Future Air Force Flight Vehicles.

The test aircraft was provided by 3246th Test Wing, Eglin Air Force Base, Florida, Mr. R. White (3246th TW/TETT) was the focal point for the test program conducted at Eglin Air Force Base during the July 1978 - September 1980 time period. The test support was provided by the 3246th TW under Test Number 1472TA02, Support of AFFDL F-111 Vibration/Acoustic Testing. AFWAL/FIBG personnel who had primary responsibility for the test program were Messrs D. E. Seely and E. R. Hotz. Other personnel who made major contributions to the success of this effort were Messrs R. D. Talmadge, C. N. Willhite, J. E. Huffman and L. P. Vaughn. Special acknowledgment is due Mrs. Diana Howdyshell for typing the manuscript.

This report is Part I of a planned number of parts concerned with the F-111E flight test program. Part I presents the details of the test program with test results presented only to give an indication of data trends and data quality. The parts to follow will deal primarily with the spectral and statistical analysis of the recorded data.

This report was released for publication by the authors in August 1981.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF FIGURES (Cont'd)

LIST OF FIGURES (Cont'd)

LIST OF FIGURES (Cont'd)

LIST OF FIGURES (Cont'd)

LIST OF TABLES

SECTION I

INTRODUCTION

One of the most severe problems in airborne equipment design, application, testing, and use is the lack of sufficient data to define the actual dynamic environment under which equipment in the vehicle must operate. In most cases, this lack of data has resulted in: (1) overdesigning the equipment which results in excessive cost, size and weight or (2) underdesigning the equipment with a resulting lack of reliability and limited service life. This problem is even more acute in designing both equipment and structures used in high speed aircraft which must operate in a severe dynamics environment.

To alleviate this deficiency, the Structural Vibration Branch, Structures and Dynamics Division, Flight Dynamics Laboratory, has implemented a comprehensive data acquisition program aimed at obtaining vibration and acoustic data on all available aircraft.

This report describes the flight test program conducted on an F-111E aircraft. The purpose of this program was to collect dynamics data, primarily vibration and acoustics data, at selected locations throughout the aircraft under test conditions within the operational envelope of the aircraft. Additional data including temperature, pressure, air flow rate, and humidity were also collected. The purpose of this report is to document the test program by presenting the details of the test instrumentation, transducer locations, test procedures, and flight conditions. Test results are limited to overall and peak root mean square (RMS) levels which give a coarse indication of the dynamics environment of the F-111E. It is intended that this report be used primarily for selecting transducers and test conditions requiring more detailed data reduction. Detailed test results will be presented in the parts of this report which will follow.

SECTION II

DESCRIPTION OF TEST VEHICLE

The F-111E aircraft, manufactured by the Fort Worth Division of General Dynamics, is a two-place, all-weather, high or low altitude, supersonic, tactical fighter bomber. The aircraft has dual controls and requires a crew of two, seated side-by-side. The aircraft provides the pilot with the in-flight capability to select any angle of wing sweep between 16 and 72.5 degrees. The aircraft has full-span fowler action, double slotted trailing edge flaps, and is powered by two TF30 fan jet afterburning engines internally mounted in the fuselage. The aircraft has a conventional tricycle gear with the main gear as a single assembly. The aircraft has a large vertical stabilizer and a conventional rudder plus ventral strakes located on the lower portion of the engine access doors approximately 30 degrees from the vertical.

The F-111E aircraft used for the test program was Tail Number 68-058. During the period 5 Oct 79 to 18 Sep 80, there were 37 test flights. On each test flight, the aircraft was configured to collect dynamics data for various combinations of internal and external stores. The internal stores included an M61 20MM cannon which was fired on nine of the flights. The aircraft was also flown with two types of experimental fluctuating pressure suppressors (spoilers) installed forward of the weapons bay and a slanted ramp installed in front of the rear bay wall. These devices were being tested to determine their effectiveness in reducing noise in the weapons bay when the bay doors were open.

SECTION III

TEST INSTRUMENTATION

The airborne data acquisition system is shown in block diagram in Figure 1. The system used 104 accelerometers and 29 microphones to measure the vibration and acoustic environment of the aircraft. The type and characteristics of the transducers used to measure acceleration and sound pressure level are summarized in Table 1. In addition to dynamic transducers (accelerometers and microphones), the system used 15 thermocouples, two airflow sensor systems, a humidity sensor, and a pressure transducer to measure slower varying aircraft characteristics. These transducers are summarized in Table 2. In addition, the total instrumentation system included: (1) an in-house fabricated programmable transfer box; (2) a 12-position Ledex, Inc. switch box; (3) a Master six-channel automatic gain changing (AGC) amplifier box; (4) a Secondary six-channel AGC amplifier box, (5) a pair of frequency multiplexers (Microcom Corp. Micromount Model MM402-10) each consisting of two voltage controlled oscillators (VCO) and one mixer amplifier with respective VCO center frequencies and deviations of 128 KHz $\pm$ 16 KHz ($\pm$2.5V) and 176 KHz $\pm$ 16 KHz (+2.5V); (6) a Mars 2000 Tape Recorder; (7) a Base Ten, Inc. Portable Data Acquisition System (PDAS) Data Collector; (8) a time code generator; and (9) voice from the aircraft intercom system.

A complete listing of all transducer identification numbers, locations, and types is contained in Table A-1. Overall transducer locations are illustrated in Figure 2. Figures A-1 thru A-6 are more detailed drawings showing transducer locations. Figure A-7 cross references the transducer number with the Figure numbers (A-8 - A-81) of the photographs which show the precise transducer locations.

Where possible, accelerometers were mounted by using double sided #10-32

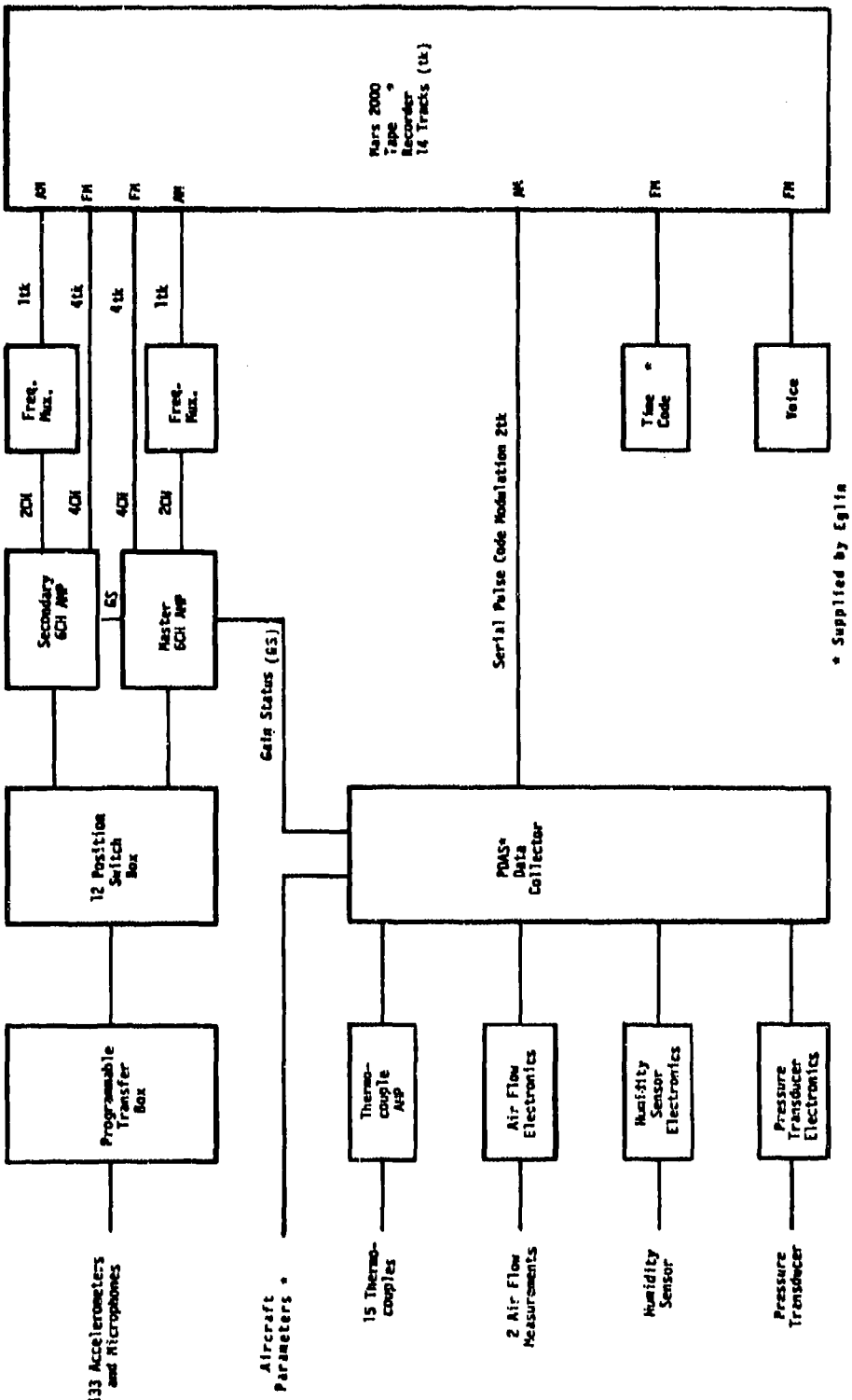


Figure 1. Data Acquisition System

TABLE 1

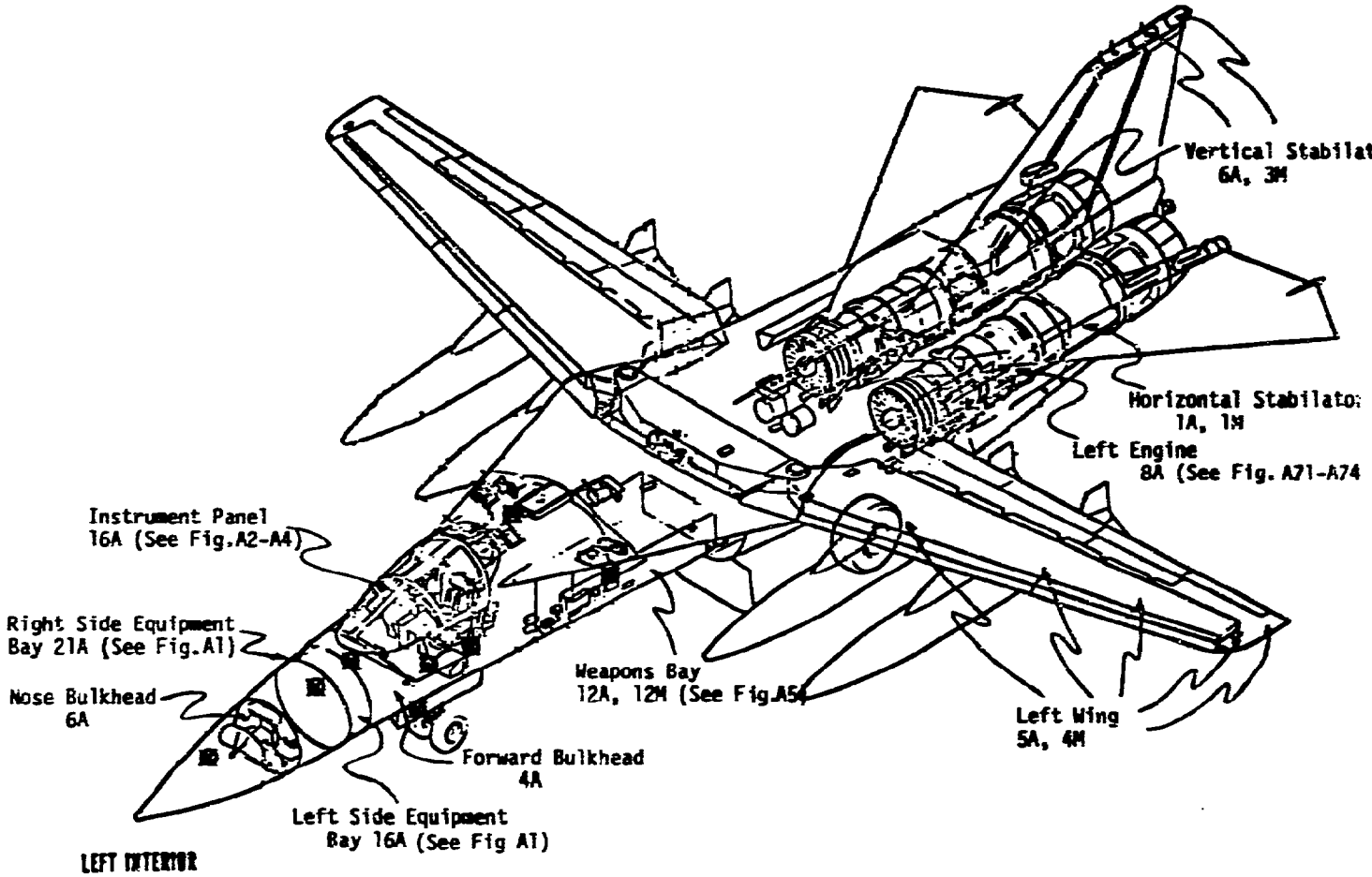
VIBRATION AND ACOUSTIC TRANSDUCERS

TRANSDUCER TYPE	MODEL	QUAN-TITY	TEMP RANGE	NOM CAP (pfd)	NOMINAL SENSITIVITY	FREQ. RESPONSE (100 Megohms Load)
Columbia Crystal Accelerometer	902-H	68	-65 F to 300 F	8,000	10mvp/gpk	1HZ- 6KHZ
Columbia Crystal Accelerometer	902-HT	17	-65 F to +500 F	8,000	10mvp/gpk	1HZ- 6KHZ
Endevco Crystal Accelerometer	2215	14	-65 F to +350 F	10,000	10mvp/gpk	2HZ- 6KHZ (±5%)
Endevco Crystal Accelerometer	2245	5	-320 F to +750 F	200	10mvp/gpk	25HZ- 5KHZ (±5%)
Gulton Piezoelectric Microphone	MVA-2100 (5/8")	29	-100 F to ±300F	3,500	32mvrms/ 140dBSPL	2HZ-10KHZ (±3dB)
		133				

TABLE 2

PDAS TRANSDUCERS

TRANSDUCER TYPE	SIGNALS	NO. SIGNALS	VALUES	RANGE	COMMENTS
Type J (Iron-Constantan) Thermocouples	Temperature	15	-1.25V to +3.25V	Programmable	
Rosemount Model 510CV1-Air Flow Measurement System	Air-flow Temperature Air-flow Reading	2 2	+20mvdc 0-5VDC	-65 F-150 F 1#/s-10#/s	Not operational due to improper installation
Thunder Scientific, Humidity Sensor	Relative Humidity	1	0-10VDC	0%-100%	
Signal Conditioner Model SC-2000-H1-T11 Sensing Element Model BR-101B-LT	Relative Humidity Temperature	1	-.3V-.5V	-30 C-50 C	
Pressure Transducer	Absolute Pressure	1	0-5VDC	30"Hg-3"Hg	
AGC Amplifier Commutator Out	AGC Gains	12	+2.5VDC	-10db to 60db	
Switchbox, Ledex	Switch Position	1	0-5VDC	1-12	
Eglin-Supplied Aircraft Parameters		30			



Note:

A = Accelerometer

M = Microphone

▣ = Location of A&M Pair

Figure 2. Overall Transducer Locations

insulated mounting studs. One side of the stud attached to the accelerometer and the other side attached to drilled and tapped holes in the structure. A single sided stud was used where holes were not allowed. The flat side of the stud was glued to a clean and sanded surface of the structure using Eastman 910 cement and the #10-32 side was attached to the accelerometer. Most of the microphone brackets were installed using a special glue formulated by Eglin personnel. Some of the microphones were installed by drilling and tapping holes to match the microphone bracket mounting holes. All external microphones were flush mounted where possible. Thermocouples which sensed structural temperatures were attached to the surfaces with epoxy. Thermocouples measuring air temperature were suspended in the air. Specific information concerning transducer mounting can be obtained from the photographs in Figures A-8 - A-81.

Each microphone and accelerometer was calibrated in the Laboratory by AFWAL/FIBG to obtain sensitivity and frequency response characteristics. After installation and prior to the initial test flight, the accelerometers were calibrated end-to-end by inserting a known calibration signal at the transducer end of the system and recording the resultant electrical signal on tape. The microphones were calibrated by applying a precise 124dB SPL to each microphone with a Bruel & Kjaer Instruments, Inc. type 4220 Pistonphone and recording this resultant electrical signal on tape. The system calibration was then determined in the Laboratory using the calibration tape.

The complete listing of PDAS input signals is given in Table C-1. In addition to the temperature, airflow, humidity, and pressure sensors mentioned earlier, the PDAS accepted aircraft parameters supplied by other aircraft systems and recorded simultaneously with the signals from transducers. The PDAS Data Collector time division multiplexed all the input signals shown in Table C-1. The system digitally encoded each data sample to a 10 bit binary word which was then converted into a serial pulse code modulation output. The

PDAS system output was 80 k bits/second. The gain status codes from each of the 12 AGC amplifiers and switch position code were also multiplexed by the PDAS.

The signal leads from the 133 accelerometers and microphones were assigned to the 144 inputs of the switch box by the Programmable Transfer Box. Six of the signal leads were paralleled to two or more switch box input slots. The Ledex, Inc. Switch Box had 12 switch positions with 12 signals output for each position of the switch. This permitted switching through 144 input signals 12 at a time. For example, switch position 1 switched in input slots 1-12, switch position 2 switched in input slots 13-24, and so forth. The AGC amplifiers would automatically change gain to provide an optimum input signal level for the recorder and multiplexers. In addition, each amplifier had a gain status output which was a DC level that identified the gain level. These 12 gain status signals were input to the PDAS system. Eight amplifier signals and two frequency multiplexed outputs were then input to the tape recorder as shown in the block diagram (Figure 1). Thus, 4 of the 12 amplifier outputs were frequency multiplexed into 2 tape tracks as shown in the block diagram (Figure 1). Frequency modulation (FM) recording with a center frequency of 54 KHz (Wide Band I) was used for the amplifier outputs, and amplitude modulation (AM) recording was used for the frequency multiplexer and PDAS outputs. Table A-2 shows the transducer ID, tape track (channel), and switch position assignments.

The accuracy limitations of the flight measurement system were due to error contributions from the transducers, signal conditioning equipment, and tape recorder. The maximum error of any one of these elements is unlikely to exceed $\pm$ 5% of full-scale output. A reasonable estimate of maximum likely overall error is the root-mean-square of the errors from the three contributors or 8.7% of full-scale output.

SECTION IV

TEST PROCEDURE

Dynamics data were recorded for test conditions which included ground runup, takeoff, climb, level acceleration and deceleration runs, sideslips, turns, stabilized flight, gunfiring passes, landing, and standard maneuvers. A complete listing of these test conditions including Mach numbers and altitudes is given in Tables 3 and 4. The test conditions listed in Table 4 are more of a transient nature, while those listed in Table 3 are for stabilized flight.

The test coordinator was initially provided a list of the desired flight test conditions. From this list, the test pilot selected the specific test conditions to be flown on each flight or mission. The initial missions concentrated on acquiring data samples throughout the aircraft flight envelope and identifying maneuvers that resulted in higher vibration/acoustic environments.

During a stabilized flight condition, data were recorded simultaneously for 12 transducers that were grouped together on one switch position. The switch was then advanced to the next position and data were recorded for the second set of 12 transducers while the pilot maintained the same stabilized flight condition. This procedure continued until the switch had been sequenced through all 12 positions and data had been recorded for all 133 accelerometers and microphones. Several of the accelerometers and microphones were paralleled onto two or more switch positions in anticipation of a need for time correlation with transducers on these other switch positions. Typical data samples were 20 seconds.

For the flight test conditions which were of a transient nature, (e.g., takeoff, acceleration and deceleration runs, and maneuvers), it was necessary to repeat each test condition for each of the switch positions. In these cases, the tape recorder was turned on just prior to performing the test condition and shut off at completion of the test condition. This resulted in test records in some cases of 3 to 5 minutes in duration. It should be noted that all of the data input to the PDAS

TABLE 3

TEST CONDITIONS PRODUCING FLAT RMS AMPLITUDE RESPONSE AS A FUNCTION OF TIME

Test Condition Number	Mach Number	Altitude (K Ft)	Test Condition
7	.85	3	Steady heading sideslip
8	.85	3	Level turn, constant G
17	.60	3	Stabilized level flight
18	.70	3	Stabilized level flight
19	.80	3	Stabilized level flight
20	.90	3	Stabilized level flight
21	1.00	3	Stabilized level flight
22	.80	15	Stabilized level flight
23	.90	15	Stabilized level flight
24	1.00	15	Stabilized level flight
25	1.20	15	Stabilized level flight
27	.90	30	Stabilized level flight
28	1.00	30	Stabilized level flight
29	1.20	30	Stabilized level flight
57	.7	17	MSL instrumentation check
60	.62	3	Gunfire (4 seconds), altitude - level
61	.65	15	Gunfire (4 seconds), altitude - 10 degree dive
62	.68	10	Gunfire (4 seconds), altitude - 10 degree dive
63	.92	30	Gunfire (4 seconds), altitude - 10 degree dive
64	.73	15	Gunfire (4 seconds), altitude - 10 degree dive
65	.92	30	Gunfire (4 seconds), altitude - 15 degree dive
66	.68	15	Gunfire (4 seconds), altitude - 20 degree dive
67	.80	13	Gunfire (4 seconds), altitude - 30 degree dive
78			Weapon carriage
83	.75	10	Stabilized level flight
84	.60	5	Stabilized level flight
85	.70	8	Stabilized level flight
86	.60	10	Stabilized level flight
87	.70	10	Stabilized level flight
88	.75	15	Stabilized level flight
89	.70	15	Stabilized level flight
90	.78	3	Stabilized level flight

TABLE 4

TEST CONDITIONS PRODUCING VARYING RMS AMPLITUDE RESPONSES AS A FUNCTION OF TIME

Condition Number	Mach Number	Altitude (K Ft)	Test Condition
1			Ground run, taxi prior to takeoff
2			Ground run, taxi after landing
4			Takeoff from engine run-up to 15 seconds after liftoff
5			Landing, 20 seconds before to 15 seconds after touchdown
9	.85	3	Level turn, Max G
12	1.05-.50	3	Standard maneuver #3, level deceleration (Speed Brakes Out)
13			Standard maneuver #4, aerobatics
14	.4-1.05	3	Level acceleration
15	.5-1.2	15	Level acceleration
16	.75-1.3	30	Level acceleration
38	1.1-.4	3	Deceleration, weapons bay open
39	1.2-.5	15	Deceleration, weapons bay open
40	1.3-.7	30	Deceleration, weapons bay open
41	1.0-.45	5	Deceleration, weapons bay open
42	1.0-.4	3	Deceleration, weapons bay closed
43	1.2-.45	15	Deceleration, weapons bay closed
44	1.3-.7	30	Deceleration, weapons bay closed
50	.5-1.12	17K	Level acceleration
51	.9-1.13	15	Speed dash, missile on
53	1.07-1.25	30	Speed dash, missile on
55	.98-1.1	35	Speed dash, missile and camera on
56	.9-1.1	8	Speed dash, missile and camera on
79	1.1	12	Weapon release

(e.g., thermocouple, flight parameters and amplifier gains) were recorded anytime the tape recorder was switched on.

The slow (3-5 minute) aircraft acceleration runs from minimum to maximum Mach numbers at several altitudes were made to allow structural resonances which might be present to build to a peak. These resonances could well occur at Mach numbers for which no stabilized data were to be recorded. When a possible resonance was indicated in playback of the data, the Mach number and altitude for this resonance were determined and a request made to fly this condition in a stabilized test condition.

An operational restriction on the aircraft prohibited acceleration runs with the weapons bay doors open. Therefore, deceleration runs from maximum to minimum Mach number at different altitudes were made with the weapons bay doors open. The following bay configurations were tested:

(1) Empty

(2) With M61 20MM cannon installed

(3) With M61 and BDU-8 installed

(4) With two BDU-8s installed

(5) With and without modifications (spoilers in front of bay and slanted ramp at rear of bay)

A total of 37 records of data were recorded during gunfire passes where 14,000 rounds of ammunition were fired by a M61 20MM cannon mounted in the right weapons bay. Each gunfiring pass consisted of 3-4 seconds of continuous firing at a rate of 100 rounds/second. A 2.5 minute waiting period was required between firings for gun cooling time.

On nine of the test flights, the aircraft was carrying either two or four external stores on the wing pivot pylons. The stores included the GBU 10C/B, MK84 and the CTU-2. External stores were released on some of the flights.

Table A-3 relates weapons bay configuration, external store configuration, and M61 gunfiring records with particular flight mission numbers.

SECTION V

DATA REDUCTION AND PRESENTATION

Data tapes recorded on each test flight were copied and sent to AFWAL/FIBG for data reduction. Figure 3 shows a block diagram of the system used to accomplish the playback and processing of the FM, AM, pulse code modulation (PCM), and frequency multiplexed data contained on each test tape. The primary purpose of this initial data reduction was to quickly assess the quality of the recorded data in order to identify any flight instrumentation problems which required correction prior to continuing with the flight test program. This approach for identifying and correcting instrumentation problems aided in improving overall data quality. Approximately 86% of the data are considered usable.

Each data tape was played back and reduced on the system shown in Figure 3. Six channels of data were reduced at a time; this required two passes through the tape to process all twelve channels of dynamics data. During each pass through the tape, six channels of data were stripped out on an oscillograph recorder at a paper speed of 0.1 inches per second with time code printed on the edge of the paper. These stripouts were used in correlating test conditions from the flight test card or log with the data actually recorded on tape. The oscillograph stripouts were also useful in determining the quality of the recorded data. Simultaneously while stripping out the data on the oscillograph each of the six analog data channels was also input to RMS detectors. The RMS detectors had a time constant of 230 milliseconds with a very flat frequency response as shown in Figure 4. The DC output of each RMS detector was input to an analog to digital conversion system simultaneously with the gain status of each AGC amplifier and the instantaneous time read from the time code tape track. These data were sampled at the lowest available digitizing rate of seven samples per second for each input channel. This rate provided more than adequate resolution and could have been lowered to 1 or 2 samples per input channel. This part of the data

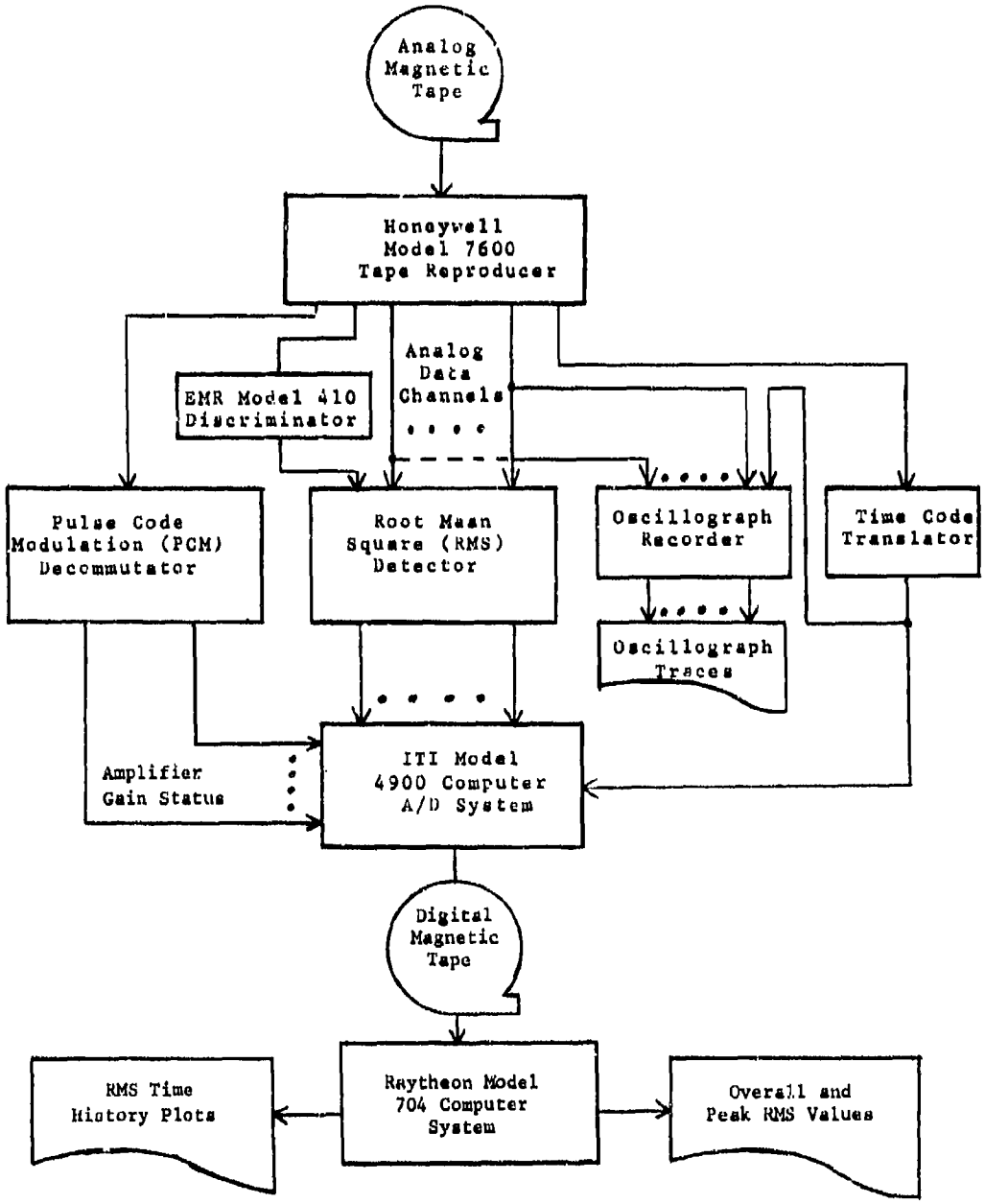


Figure 3. Data Playback and Reduction System

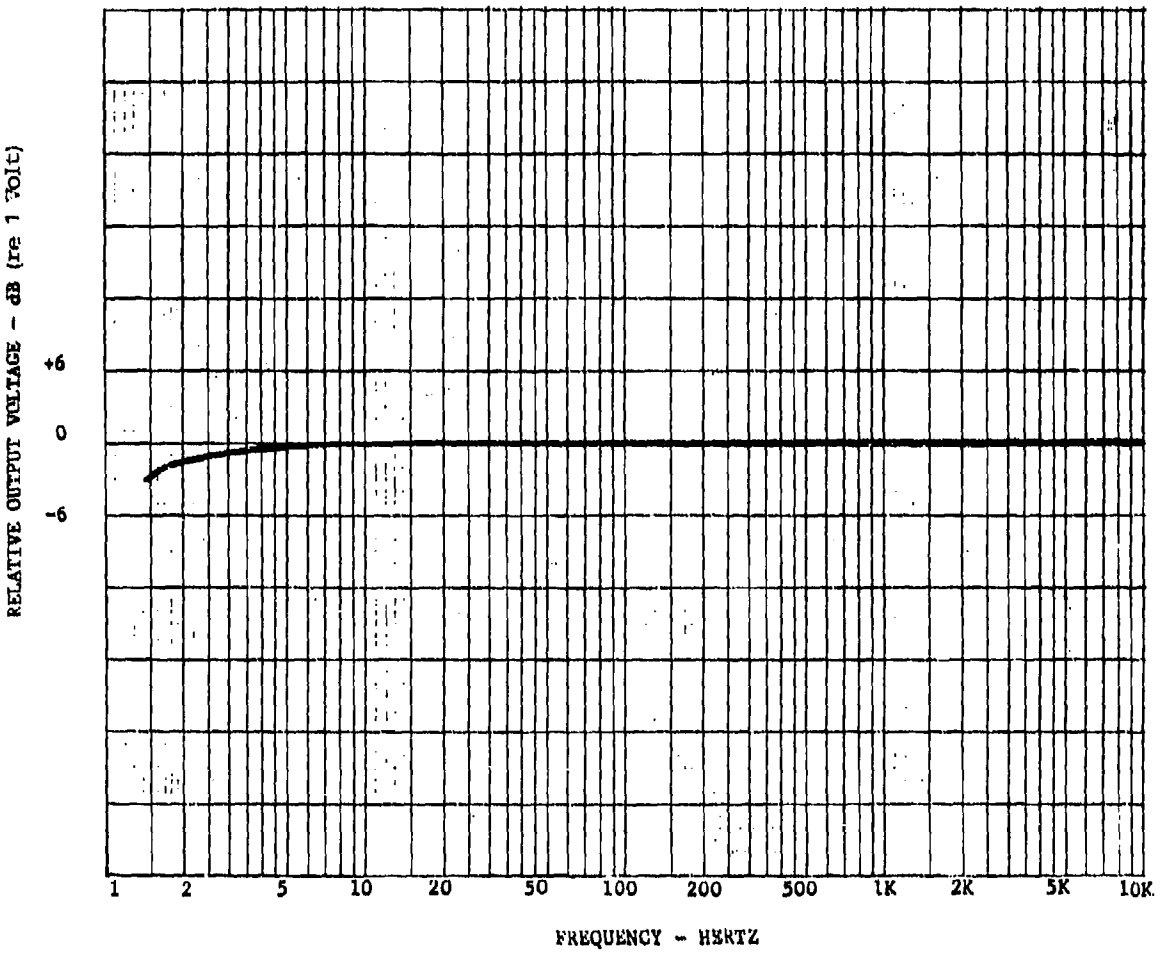


Figure 4. RMS Detector Frequency Response

reduction process was automated; therefore, once the system was set up, the flight tape could be played back in its entirety with no operator assistance required other than rewinding the tape and starting it for the second pass.

The digital tape produced by the analog to digital system was then input to a Raytheon Model 704 computer system along with transducer sensitivities and pickup identification (PUID) codes. Computer software then applied the proper amplifier gain factor and the matching transducer sensitivity to each data sample to produce RMS time history data in engineering units of G-PMS for accelerometer data and dB-sound pressure level for microphone data. Individual RMS time history plots were then made for each transducer for all test records. The initial time history plots revealed a need for additional smoothing to reduce the effects of transients in the data which were directly related to the data acquisition or reduction instrumentation. Examples of these are: a momentary loss of PCM decommutator synchronization signal, change of amplifier gain, and change of switch position. To overcome this problem, a "running average" technique was employed. This averaging technique simply replaced each data point with the average of its amplitude and the amplitude of some specified number of successive data points. It was determined that an eight-point running average produced the desired smoothing. Three typical time history plots are shown in Figure 5. A symbol plotted on the time history curve indicates that during the recording of the data, the signal level exceeded the set upper or lower level limits of the auto-gain ranging amplifier causing the amplifier to step up or down in gain to bring the data signal back into the optimum range of the tape recorder. Printed in the upper right corner of each plot is the initial amplifier gain level in dB (e.g., 40dB = X100 gain) and the actual start time of the record. Any gain change is printed below the starting gain along with the time of occurrence. This information is very useful in performing further data reduction. In addition, the overall RMS level which is computed over the entire test record is printed along

Mission No. 1016, 19 May 80

Test Condition - 9: Left Turn, Max g, Mach 0.85 @ 3K feet

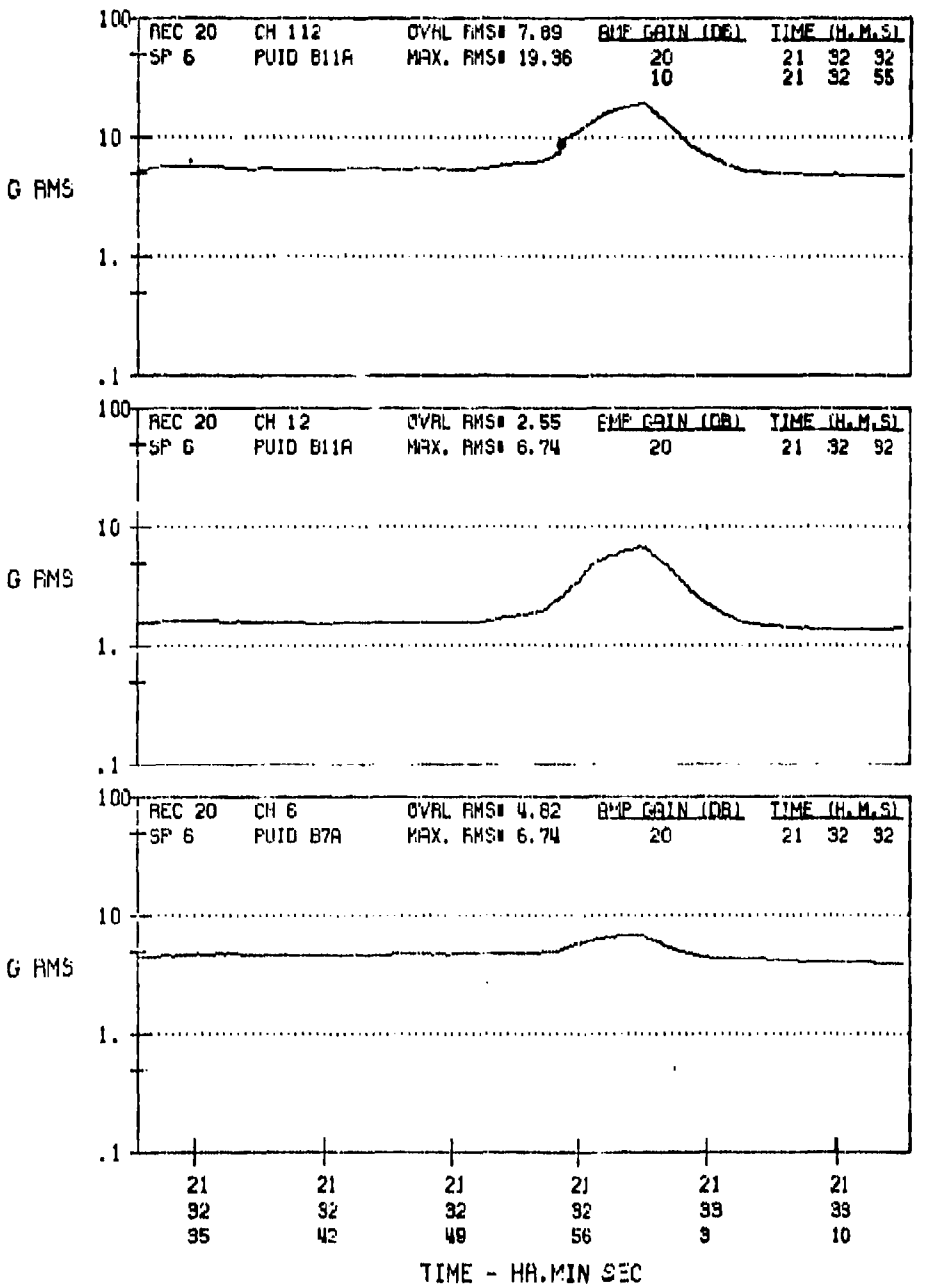


Figure 5 Typical RMS Time Histories

with the maximum RMS level attained during the test record.

Approximately 7200 individual time history plots were produced. Since it is not feasible to include that many plots in this report, it was decided to present this data in condensed but still usable form. About one-half of the time history plots exhibit a relative flat or constant amplitude. Figure 6 shows three typical examples of this type of time history. Data which exhibits this flat amplitude response with time can be represented by its overall RMS level. A list of flight conditions which produced relatively flat amplitude time history responses was given in Table 3. The overall RMS levels for transducer data recorded for these test conditions are given in Appendix B, Table B-1. This table contains the RMS data for each set of 12 transducers for each indicated switch position. In many cases, the same test condition was flown more than once. This is indicated in the tables by consecutive entries of the same test condition code. Time history plots which do not exhibit a flat amplitude level are produced by flight conditions of a transient nature. A list of these flight conditions was given in Table 4. Figure 7 shows three typical examples of time history plots with varying amplitude levels. For this type of data, the maximum amplitude which occurs within a given test record is of more value than the overall RMS. Appendix B, Table B-2 presents maximum RMS levels as read from the time history plots for each transducer.

Data which has been identified as unusable due to instrumentation problems is indicated in Tables B-1 and B-2 by an RMS amplitude of .00. These instrumentation problems were identified during the data editing phase of producing the RMS values. It is suspected that a limited amount of questionable data still remains to be identified. This questionable data probably represents less than 1-2% of the presented RMS data and will be identified during the future spectral analysis phase of data reduction. The spectral analyses will identify the frequency and amplitude of the complex responses which were summed

Mission No 1012, 28 Apr 80

Test Condition - 23: Stabilized Level Flight, Mach 0.9 @ 15K Feet

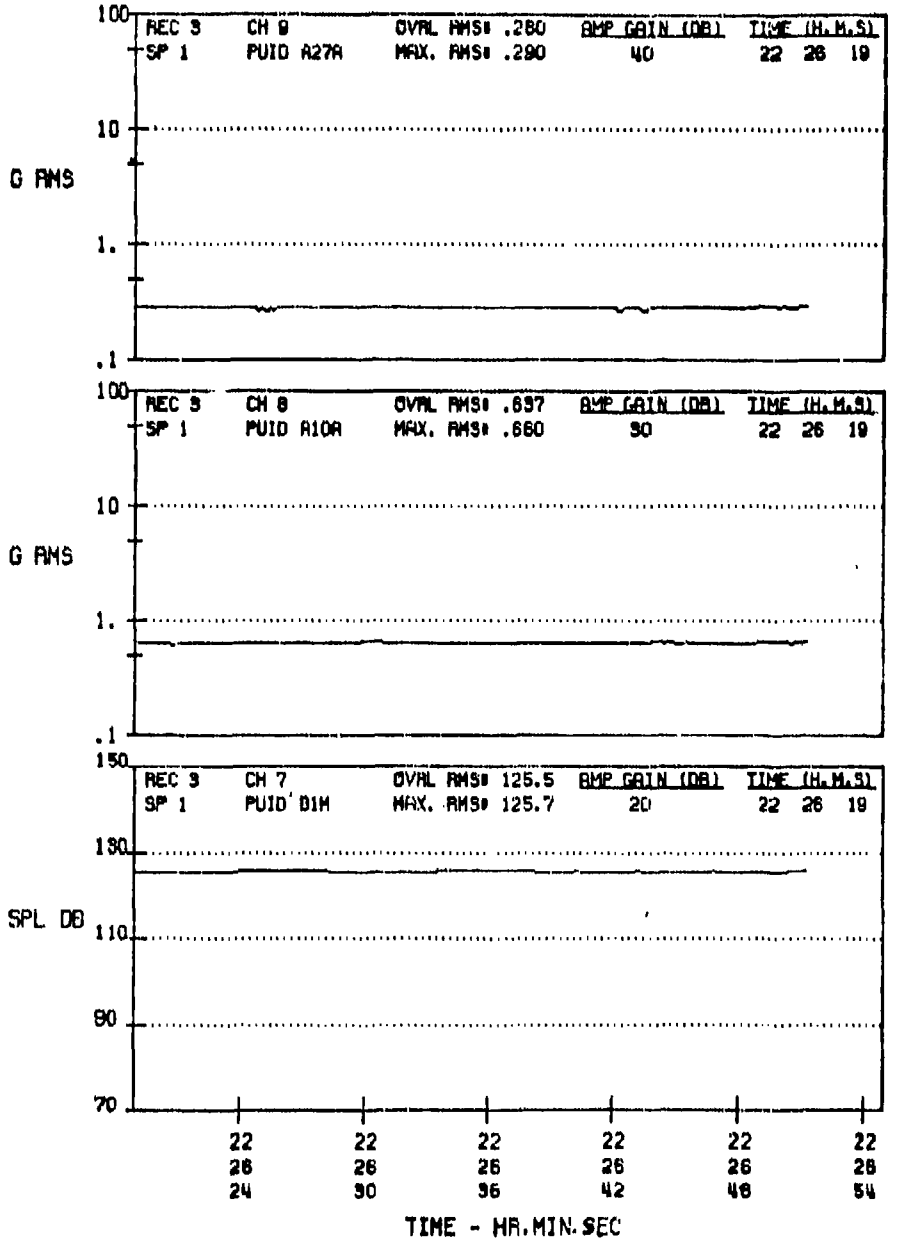


Figure 6 Typical Flat Amplitude RMS Time Histories

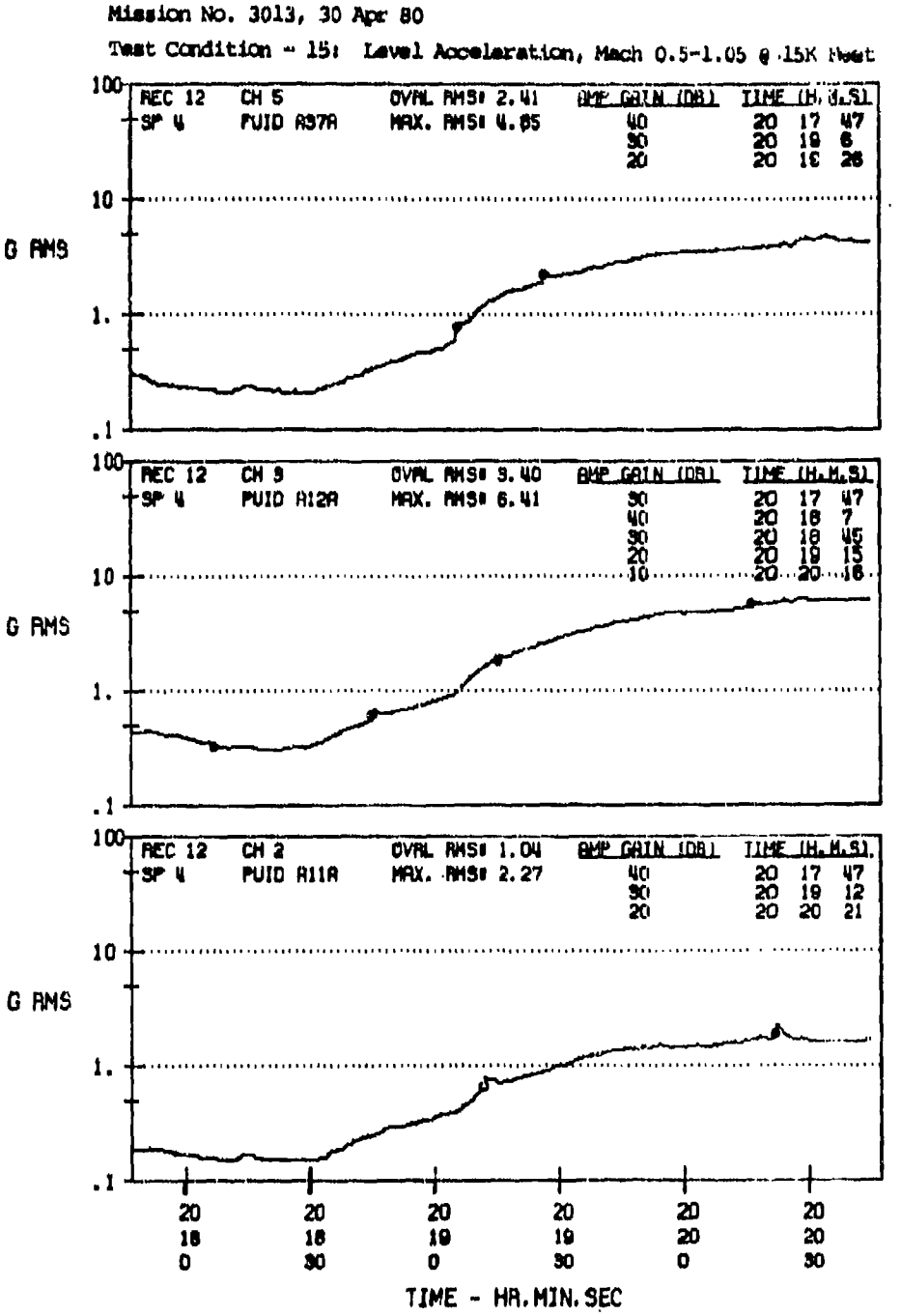


Figure 7 Typical Varying Amplitude RMS Time Histories

in the RMS process to produce each overall RMS amplitude level. This information will be presented in succeeding parts of this report.

Reduction of the large amount of data collected on the PCM channel has been limited to making computer listings of this data at one-second time intervals. These listings were provided by the Math Lab at Eglin AFB FL. Appendix C, Tables C-1 thru C-4 are reproductions of typical listings for each type of printout. These listings are available for later use in correlating aircraft measured dynamic response with flight parameters, temperatures, flow rates, etc.

SECTION VI

PLANNED DATA ANALYSIS

The dynamics data measured on the F-111E will be used in several specific efforts now being conducted within the Air Force. These efforts are briefly described in the following paragraphs.

1. AFWAL/FIBG Work Unit 24010414. The title of this work unit is "Vibration Analysis and Testing Technology". A major part of this work unit is devoted to the development and verification of empirical methods for the prediction of both linear and angular vibration of aircraft structures. Much of the data measured on the F-111E will be used to improve and expand these existing prediction methods. The data will also be used to study a new prediction technique for vibration transmitted from external skin structure to internal compartment sub-structure and equipment. This will involve using measurements from pairs of accelerometers and microphones which were installed at specified locations throughout the F-111E aircraft.

2. AFWAL/FIBE Work Unit 24010146. The title of this work unit is "Acoustics Research". One area being studied under this work unit is internal weapons bay aero-acoustic environments. The internal weapons bay environment immediately before and during weapons release continues to present severe aircraft, weapons design, structural, and operational problems. A substantial part of the F-111E vibration and acoustics test program was conducted to measure the weapons bay aeroacoustic environment with the bay doors open with and without fluctuating pressure suppression devices installed. This measured data will be evaluated to determine effectiveness of the suppression devices in reducing the weapons bay aeroacoustic environment. Initial results of this effort were reported in Reference 2.

3. AFWAL/FIBG Work Unit 24010401. The title of this work unit is "Dynamics Environment on Current and Future Air Force Flight Vehicles". Overall

RMS vibration measurements will be modeled as the sum of a general mean plus a location effect plus a test condition effect plus an interaction constant times the product of these two effects. From these results, locations and test conditions for broad band spectral analyses will be selected. Then spectral magnitudes at each frequency will be modeled in the same way and the results plotted to show on the same graph, the same frequency spectrum of the general mean, the location effect, the test condition effect, and the interaction constant. These results can then, in turn, be used to determine the need for further narrow band analyses. Regression analyses will be employed to model the test condition effects as functions of airspeed, altitude, engine power, etc. Analyses of variance will be used to model location effects in terms of structural characteristics and direction. Factor analyses will also be used to determine the extent to which all spectral plots obtained can be modeled as linear combinations of a few more fundamental plots. This work will be reported in subsequent parts of this report.

4. TN-ASD-AFWAL-2011-75-17(01). The title of this technology need (TN) is "Updated Dynamics Qualification Test Criteria and Techniques" dated 17 Oct 80. The objective of this TN is to refine and augment the dynamic test methods of MIL-STD-810. One particular area to be updated is that which covers gunfire criteria. The gunfire vibration prediction method contained in the present version of MIL-STD-810 was developed prior to 1975. Gunfire data from the F-111E test program and from other recent test programs will be used to evaluate a recently developed simplified gunfire vibration prediction method. Vibration and acoustic data will also be made available for updating other sections of MIL-STD-810 as well.

SECTION VII

CONCLUSIONS

1. A large quantity of vibration and acoustic test data recorded throughout the operational flight envelope of the F-111E is now available for use in dynamics research and development efforts, designing electronic and electro-optical systems, updating dynamics qualification test criteria, and solving present and future operational dynamics problems on the F-111E.

2. To improve the overall quality of dynamics test data on large flight test programs, it is essential that test tapes be played back and reviewed for quality following each test flight with adequate time provided to correct major instrumentation problems prior to continuing the flight test program. The use of an RMS Detector System and time history computer software provides an effective "quick look" method for determining the quality of flight test data.

3. The flight parameter data which was sampled and recorded along with the dynamics data was very useful in correlating aircraft performance with dynamics response. Much of the scatter in the dynamics data can be attributed to the difficulty in maintaining stable flight conditions over the length of test records and the necessity of setting up and repeating flight conditions for each set of 12 transducers.

APPENDIX A

TRANSDUCER LOCATIONS AND AIRCRAFT TEST CONFIGURATIONS

FIGURES

TABLES

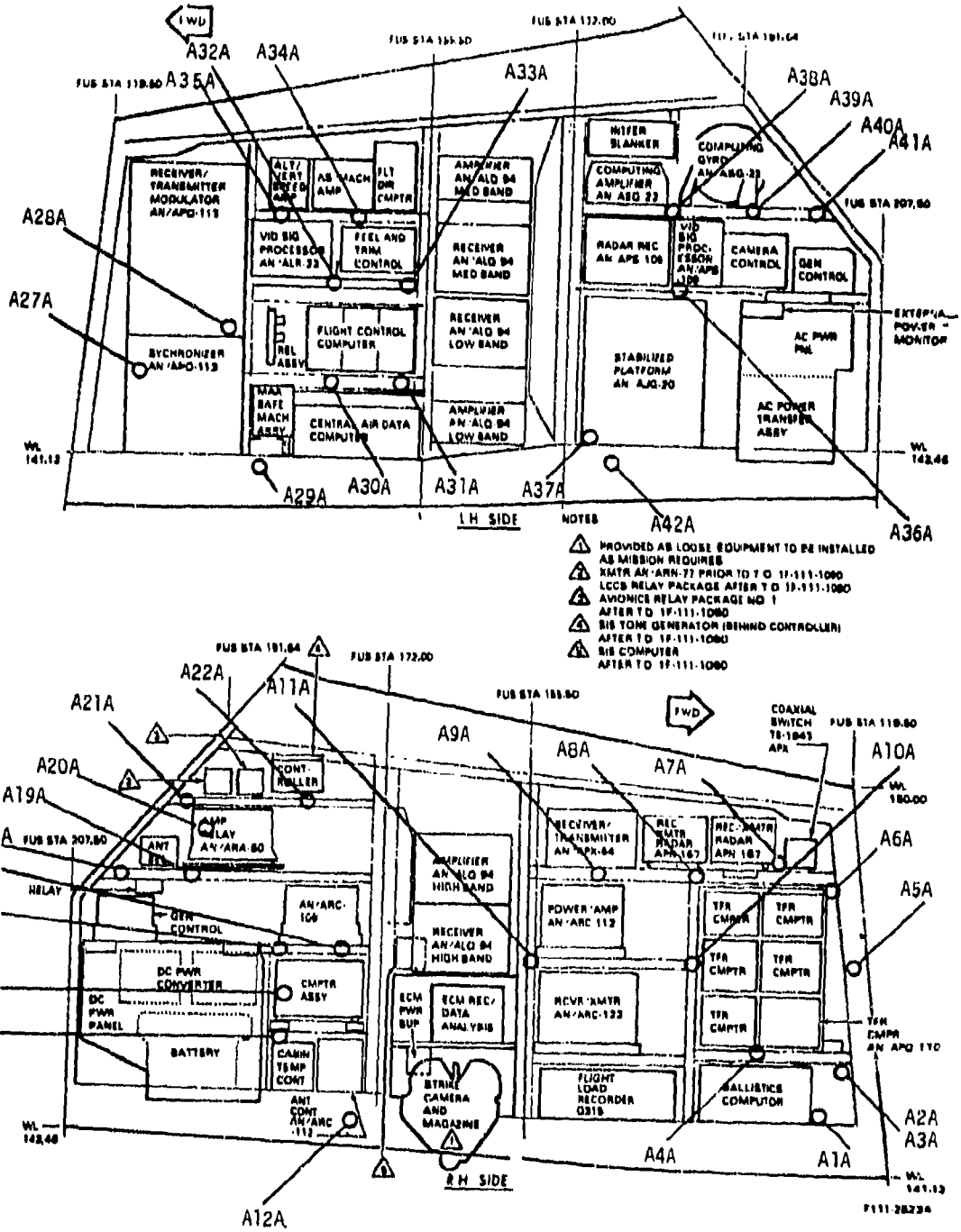


Figure A-1 Accelerometer Locations in Nose Equipment Bays

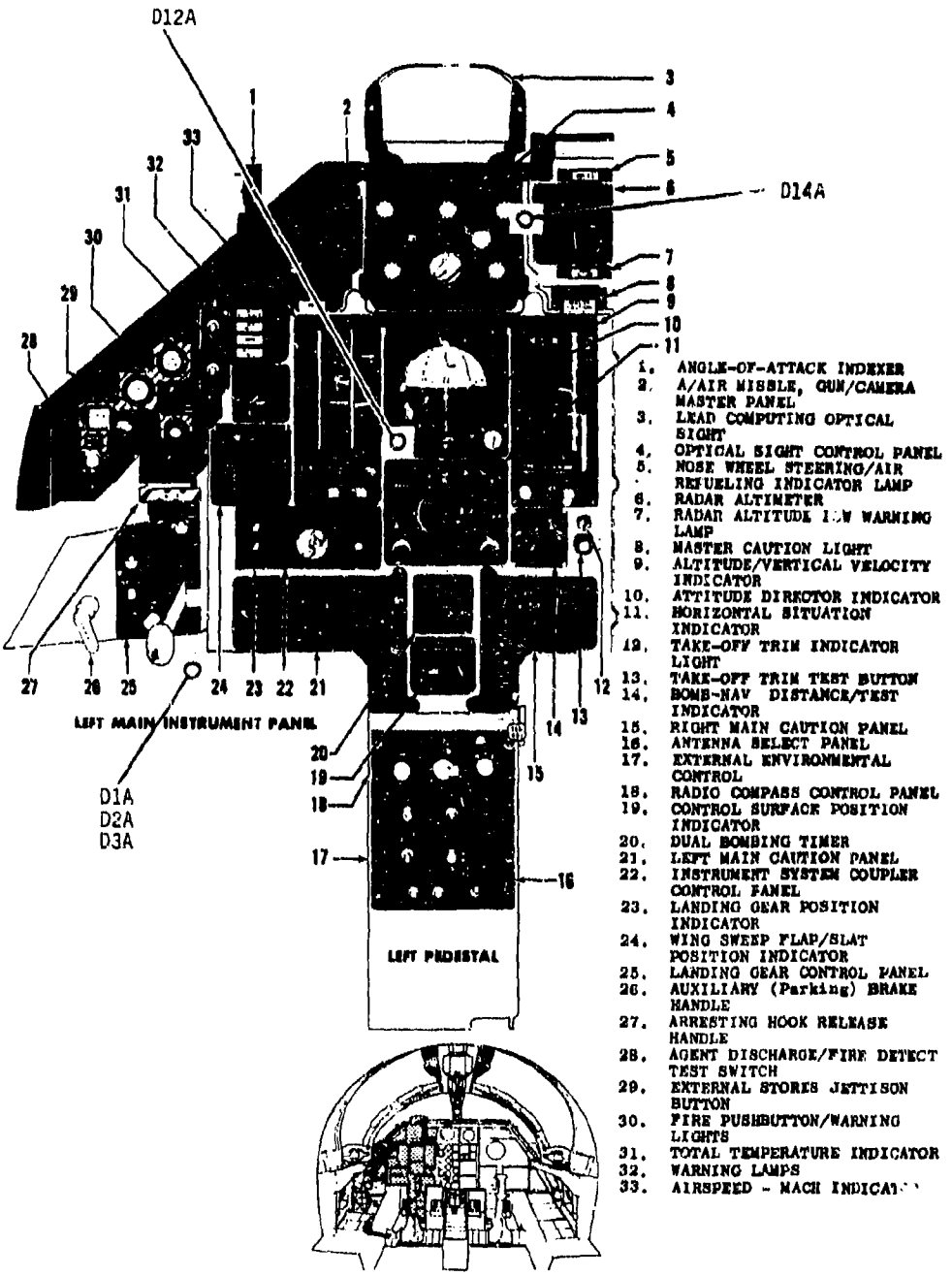


Figure A-2 Accelerometer Locations on Left Main Instrument Panel

1. TERRAIN FOLLOWING RADAR DISPLAY
2. STANDBY MAGNETIC COMPASS
3. BEARING-DISTANCE-HEADING INDICATOR
4. RADAR HOMING AND WARNING CONTROL-INDICATOR PANEL
5. RADIO CALL
6. RADAR HOMING AND WARNING CONTROL-INDICATOR FILTER ASST (Stowed position)
7. STANDBY ATTITUDE INDICATOR
8. STANDBY ALTIMETER
9. TRIPRAY DISPLAY INDICATOR, WARNING, AND CAUTION LIGHTS
10. ATTACK RADAR DISPLAY PANEL
11. ANGLE-OF-ATTACK INDEXER
12. NUCLEAR WEAPONS CONTROL PANEL AND CAUTION LIGHTS
13. BOMB-NAV CONTROL PANEL
14. ILS CONTROL PANEL
15. BURST CONTROL PANEL
16. AIM POINT TARGET ELEVATION
17. UHF RADIO CONTROL PANEL
18. TACAN CONTROL PANEL
19. SAM SECTOR PANEL (PRIOR TO T.O. 1F-111-1098)
SAM SECTOR INDICATOR DELETED AFTER T.O. 1F-111-1098
20. FUEL QUANTITY INDICATOR TEST BUTTON AND TOTAL/SELECT FUEL QUANTITY INDICATOR
21. FUEL GAGE SELECT
22. OIL QUANTITY INDICATOR
23. OIL QUANTITY INDICATOR TEST BUTTON
24. ENGINE OIL PRESSURE INDICATOR (2)
25. HYDRAULIC PRIMARY AND UTILITY OIL PRESSURE INDICATOR
26. ENGINE PRESSURE RATIO (2)
27. FUSELAGE FUEL QUANTITY INDICATOR
28. NOZZLE POSITION INDICATOR (2)
29. CLOCK
30. ENGINE FUEL FLOW INDICATOR (2)
31. TRUE AIRSPEED INDICATOR
32. RATE-OF-CLIMB (Vertical velocity) INDICATOR
33. TURBINE INLET TEMPERATURE INDICATOR (2)
34. STANDBY AIRSPEED INDICATOR
35. ENGINE TACHOMETER (2)

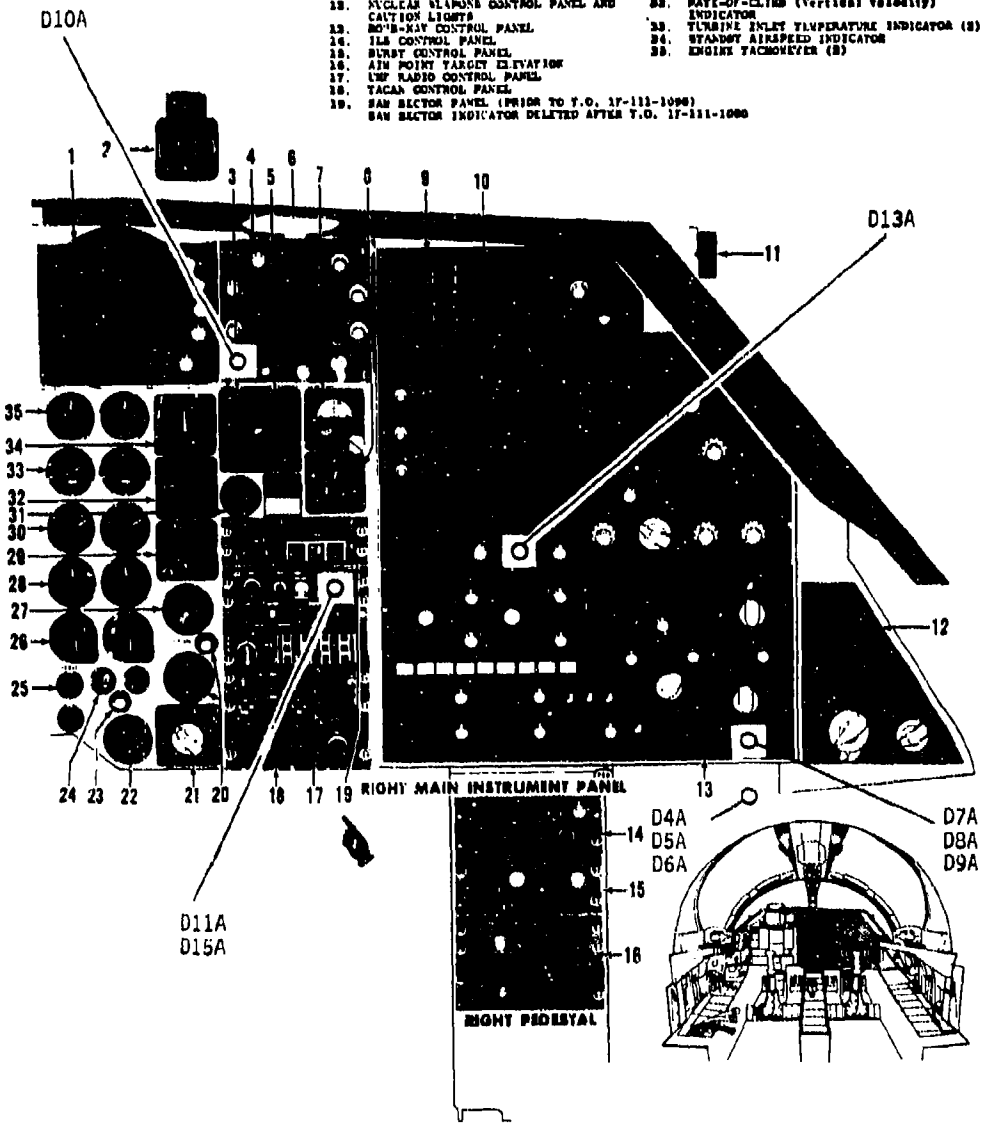
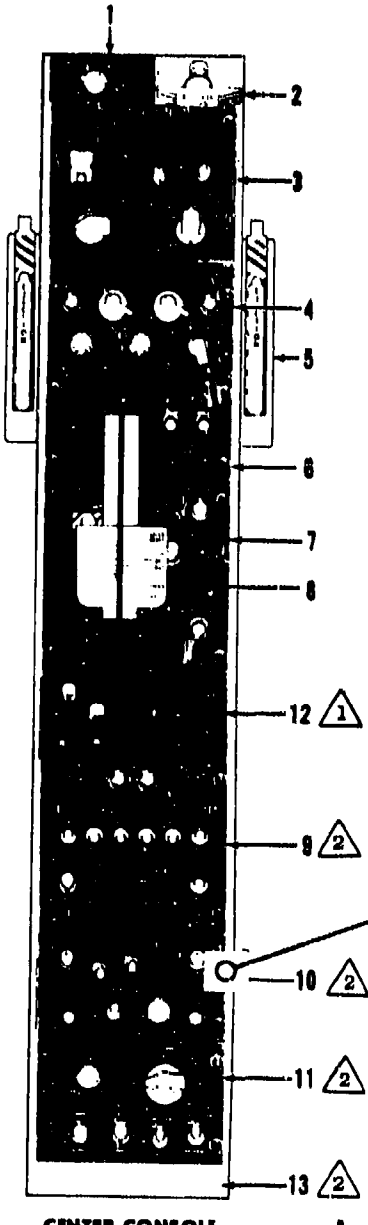
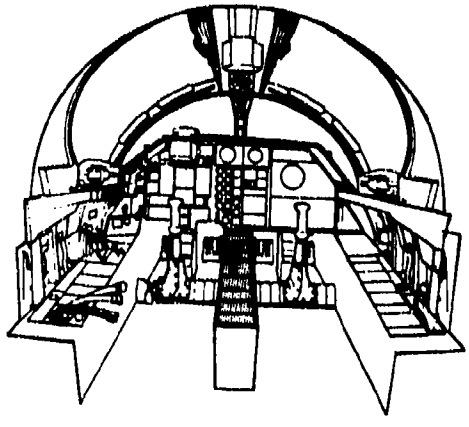


Figure A-3 Accelerometer Locations on Center and Right Main Instrument Panel



CENTER CONSOLE



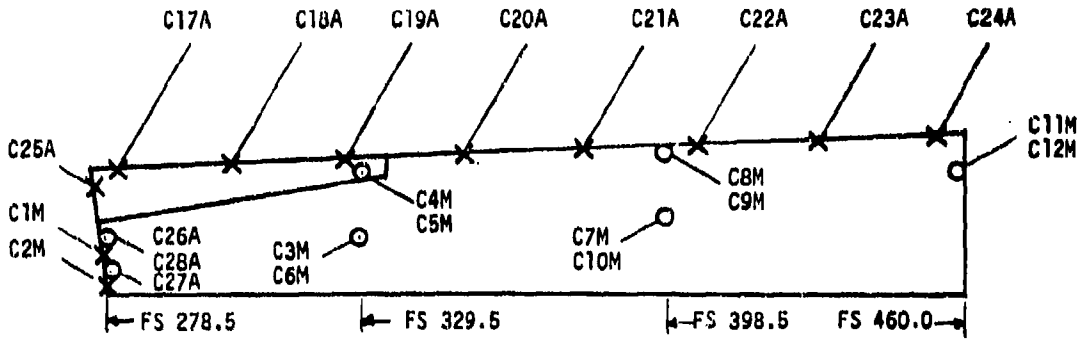
1. AIR REFUEL RECEPTACLE LIGHT CONTROL KNOB
2. ALTERNATE GEAR DOWN HANDLE
3. FUEL CONTROL PANEL
4. TFR CONTROL PANEL
5. CREW MODULE EJECTION HANDLE (2)
6. SPIKE CONTROL PANEL
7. GROUND START SWITCH, AIR START BUTTON, RBS TONE SWITCH
8. RIGHT CREWMEMBERS THROTTLES
9. IFF CONTROL PANEL
10. ELECTRICAL CONTROL PANEL
11. AIR CONDITIONING CONTROL PANEL (AIR FLOW switch effective on AF S/N 68-030 thru 68-[illegible] and on 67-115 thru 68-029 [illegible]er T.O. 1F-111-687) (EMER position of AIR SOURCE switch is effective on AF S/N 68-070 thru 68-084 and on 67-115 thru 68-029 after T.O. 1F-111-572)
12. (1) ECM CONTROL PANEL/ALQ-119
13. (2) CONTROL PANEL SCOPE CAMERA

NOTES:

(1) AFTER T.O. 1F-111E-521

(2) RELOCATED AFTER T.O. 1F-111E-521D

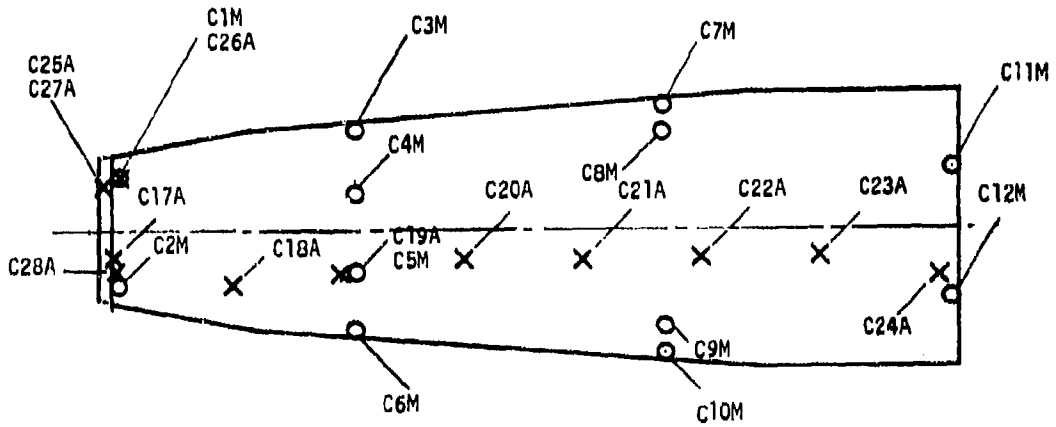
Figure A-4 Accelerometer Locations on Center Console



SIDE VIEW

X - ACCELEROMETER

O - MICROPHONE



BOTTOM VIEW

Figure A-5 Sketch of Accelerometer and Microphone Locations in Weapons Bay

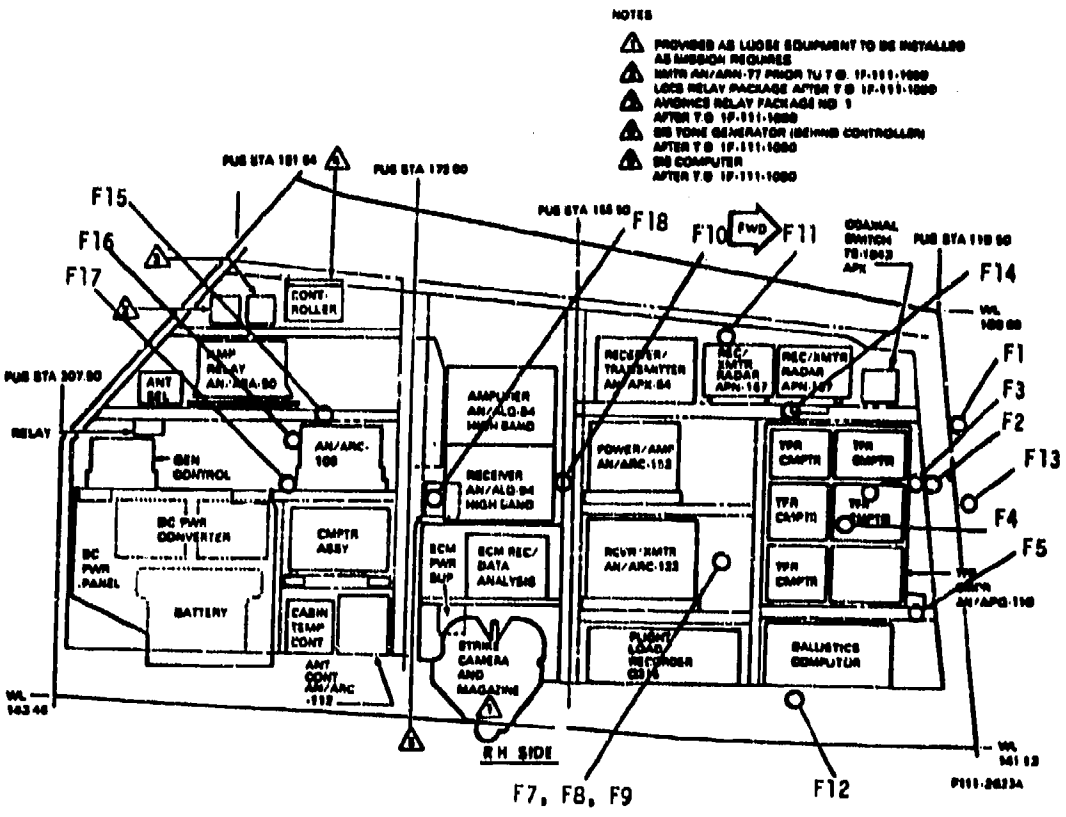


Figure A-6 Thermocouple Locations in Right Side Nose Equipment Bay

TRANSDUCER NUMBER	FIGURE NUMBER
A1A	A-8, A-9
A2A	A-8, A-9
A3A	A-8, A-9
A4A	A-8, A-9
A5A	A-10
A6A	A-8, A-11
A7A	A-8, A-11
A8A	A-8, A-11
A9A	A-8, A-12
A10A	A-8, A-11
A11A	A-8, A-12
A12A	A-8, A-13
A13A	A-8, A-14
A14A	A-8, A-14
A15A	A-8, A-14
A16A	A-8, A-14
A18A	A-8, A-15
A19A	A-8, A-15
A20A	A-8, A-15
A21A	A-8, A-15
A22A	A-8, A-15
A27A	A-16, A-17
A28A	A-16, A-17
A29A	A-16, A-18
A30A	A-16, A-18
A31A	A-16, A-18
A32A	A-16, A-19
A33A	A-16, A-19
A34A	A-16, A-19
A35A	A-16, A-19
A36A	A-16, A-20
A37A	A-16, A-21
A38A	A-16, A-20
A39A	A-16, A-20
A40A	A-16, A-20
A41A	A-16, A-20
A42A	A-16, A-21
A43A	A-22
A44A	A-22
A45A	A-23
A46A	A-24
A47A	A-25
A48A	A-25
A49A	A-26
A50A	A-26
A51A	A-26
A52A	A-9
B1A	A-28
B2A	A-29
B3A	A-30
B4A	A-32
B5A	A-34
B6A	A-34
B7A	A-35
B8A	A-36
B9A	A-37
B10A	A-38
B11A1	A-38
B11A2	A-38
B12A	A-39, A-69
B13A	A-40
B14A	A-41
B15A	A-42
B16A	A-43
B1M	A-27, A-28
B2M	A-29
B3M	A-30
B4M	A-31, A-32
B5M	A-33, A-34
B6M	A-33, A-34
B7M	A-35
B8M	A-36
B9M	A-37
B10M	A-38
B12M	A-39, A-69
B13M	A-40
B14M	A-41
B15M	A-42
B16M	A-43
C1M	A-46, A-47
C2M	A-47
C3M	A-48

Figure A-7 Cross Reference: Transducer Number with Figure Number of Photograph Showing Precise Transducer Location

TRANSDUCER NUMBER	FIGURE NUMBER
C4M	A-48, A-49
C5M	A-50
C6M	A-44, A-56
C7M	A-51
C8M	A-51, A-52
C9M	A-53
C10M	A-54
C11M	A-45
C12M	A-45
C17A	A-55
C18A	A-44, A-56
C19A	A-44, A-50
C20A	A-44, A-57
C21A	A-44
C22A	A-44
C23A	A-45
C24A	A-45
C25A	A-46
C26A	A-47, A-58
C27A	A-47, A-58
C28A	A-47
D1A	A-59, A-61
D2A	A-59, A-61
D3A	A-59, A-61
D4A	A-60, A-62
D5A	A-60, A-62
D6A	A-60, A-62
D7A	A-60, A-62
D8A	A-60, A-62
D9A	A-60, A-62
D10A	A-60, A-63
D11A	A-60, A-64
D12A	A-59, A-65
D13A	A-60, A-64
D14A	A-59, A-65
D15A	A-60, A-64
D16A	A-66
E1M	A-31, A-67
E2A	A-71, A-72
E3A	A-71, A-72
E4A	A-71
E5A	A-71
E6A	A-68
E7M	A-39, A-69
E11A	A-69
E12A	A-69
E13A	A-70
E14A	A-71, A-73
E15A	A-71, A-73
A16A	A-71, A-73
A17A	A-71, A-74
F1	A-22
F2	A-10
F3	A-8, A-26
F4	A-75
F5	A-9
F6	A-75
F7	A-76
F8	A-76
F9	A-8, A-77
F10	A-8, A-77
F11	A-78
F12	A-8, A-79
F13	A-22
F14	A-80
F15	A-8, A-81
F16	A-81
F17	A-81
F18	A-77
F19	A-74

Figure A-7 (Cont) Cross Reference: Transducer Number with Figure Number of Photograph Showing Precise Transducer Location

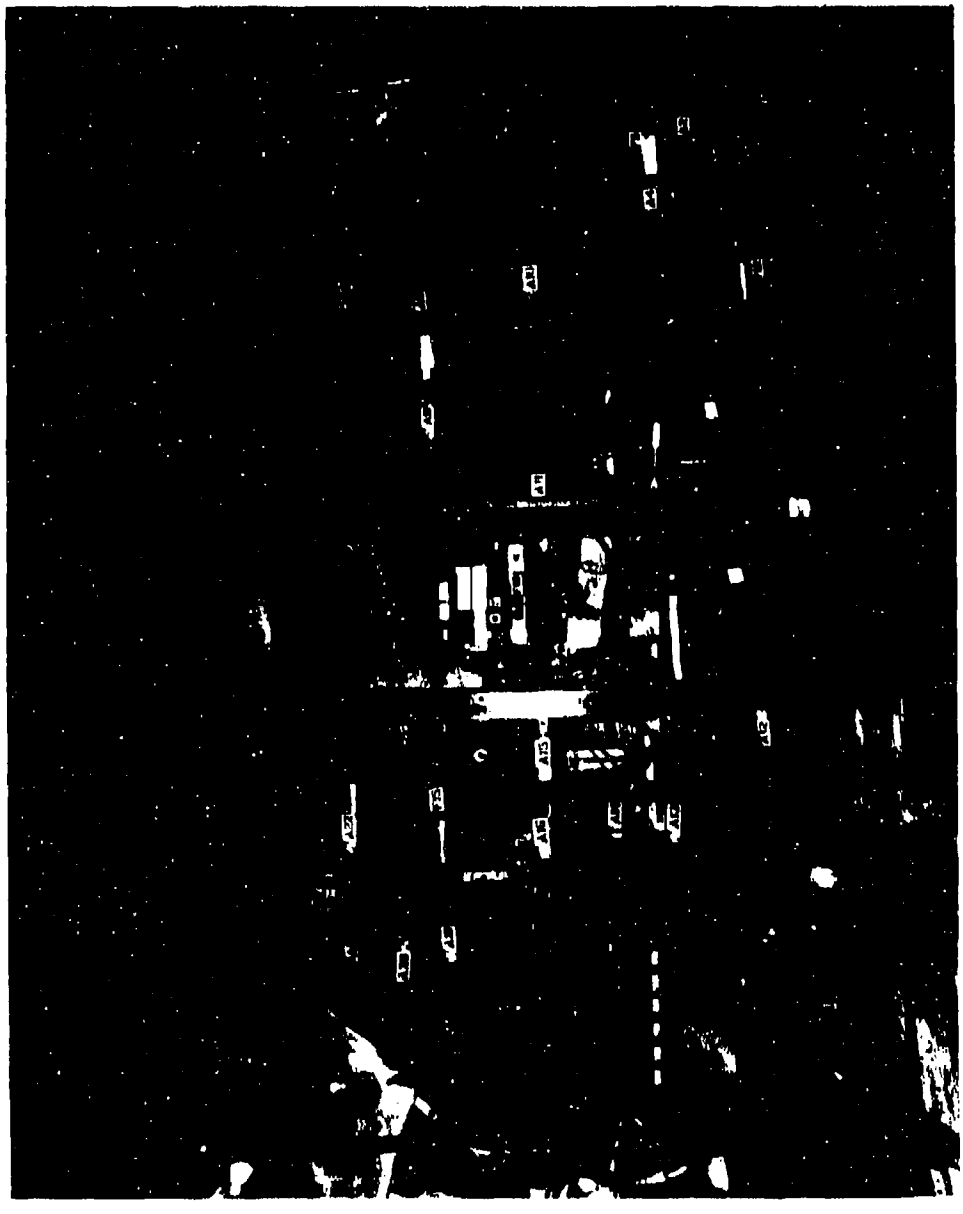


Figure A-8. Trandsucer Locations in Right Side Equipment Bay

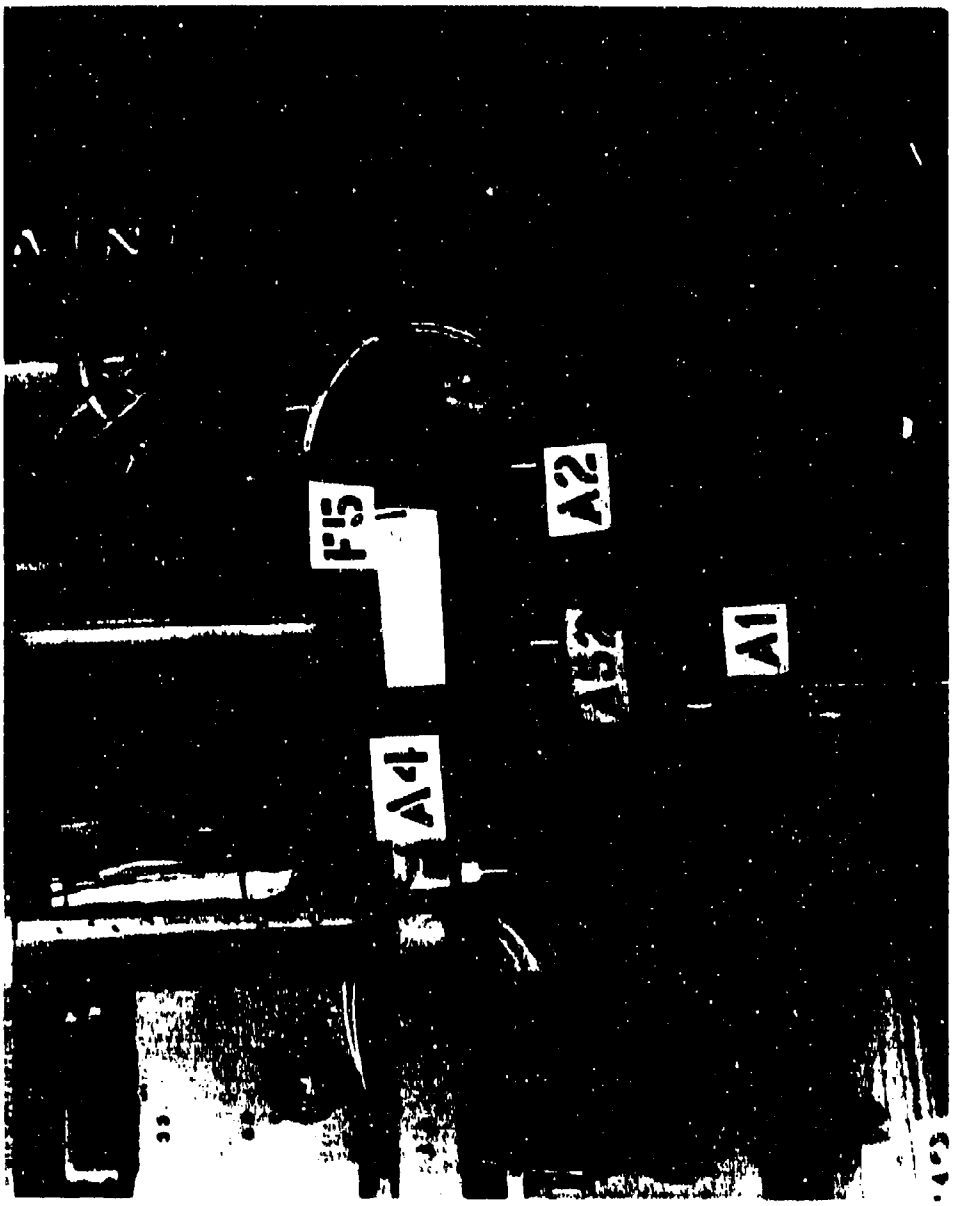


Figure A-9. Transducer Locations Near Ballistics Computer Compartment

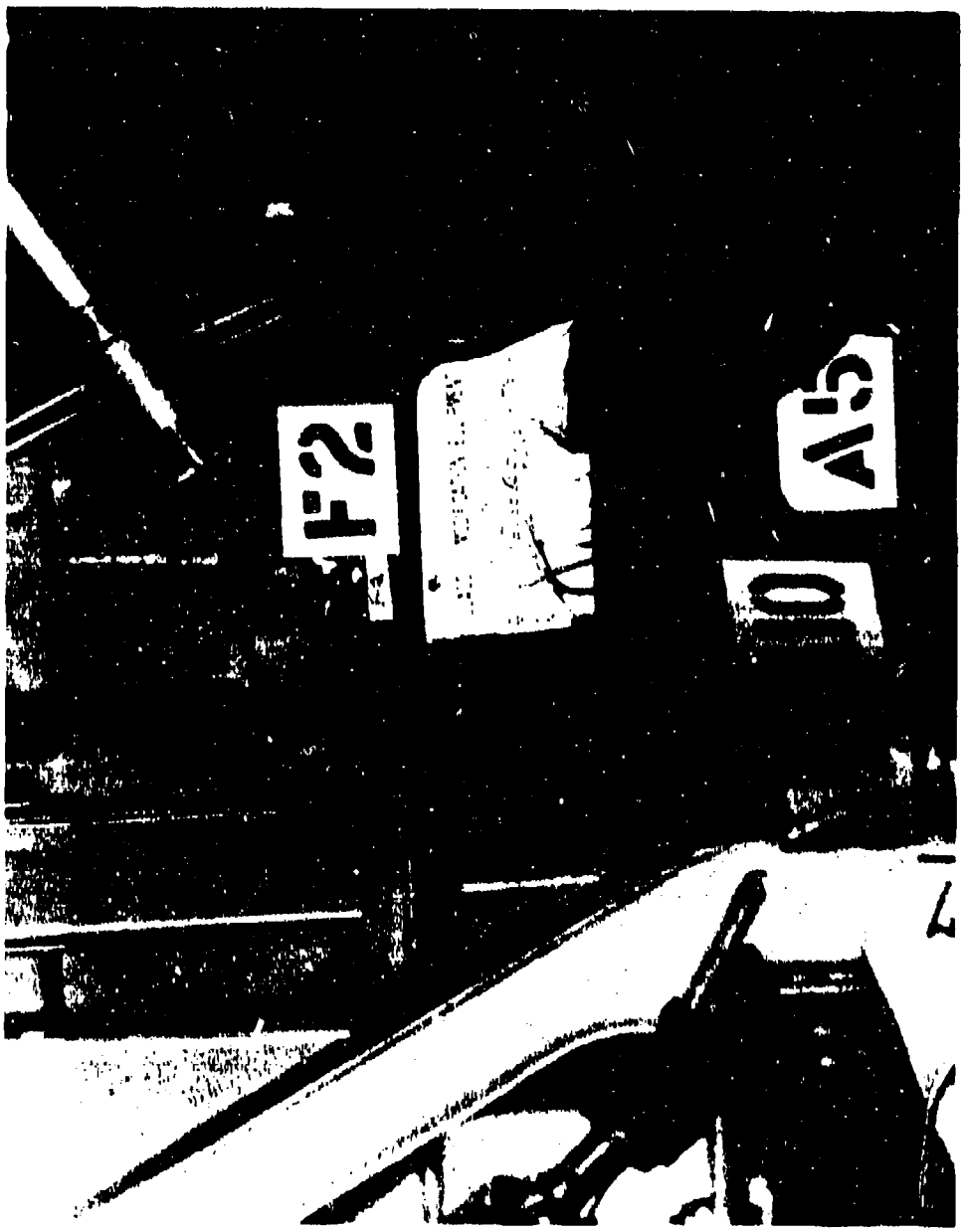


Figure A-10. Transducer Locations Aft of TFR Computer Compartment

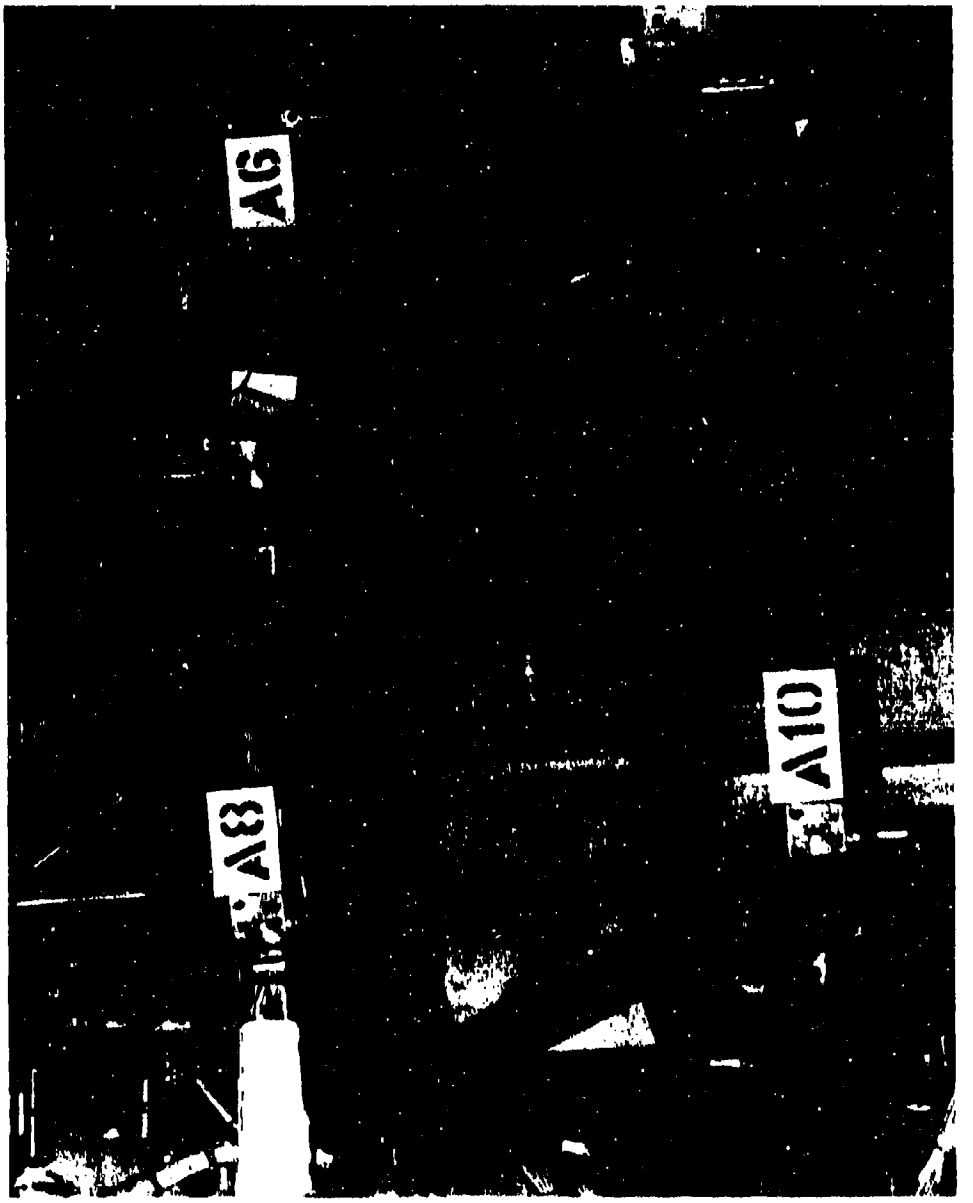


Figure A-11. Transducer Locations Near TFR Computer Compartment

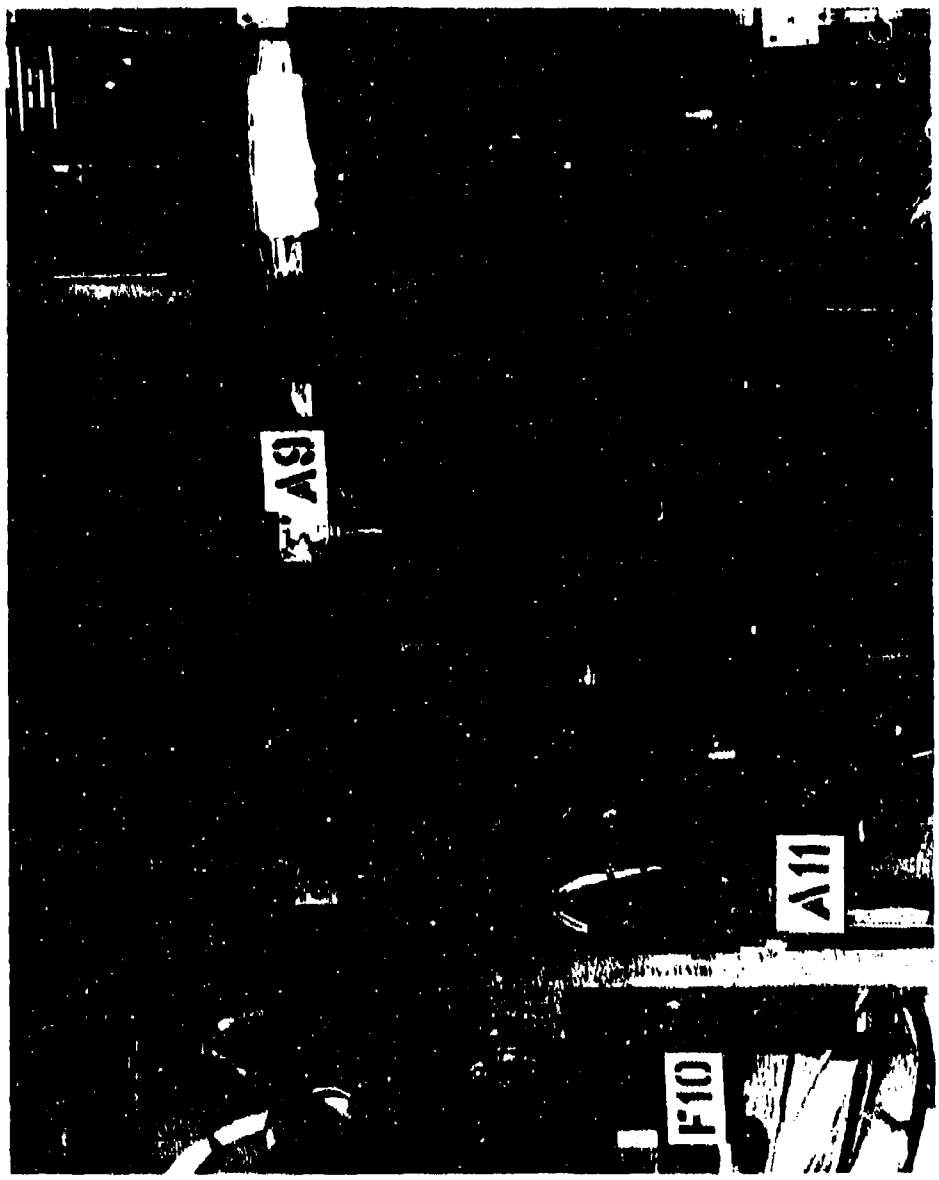


Figure A-12. Transducer Locations Near Power/AMP AN/ARC-112 Compartment

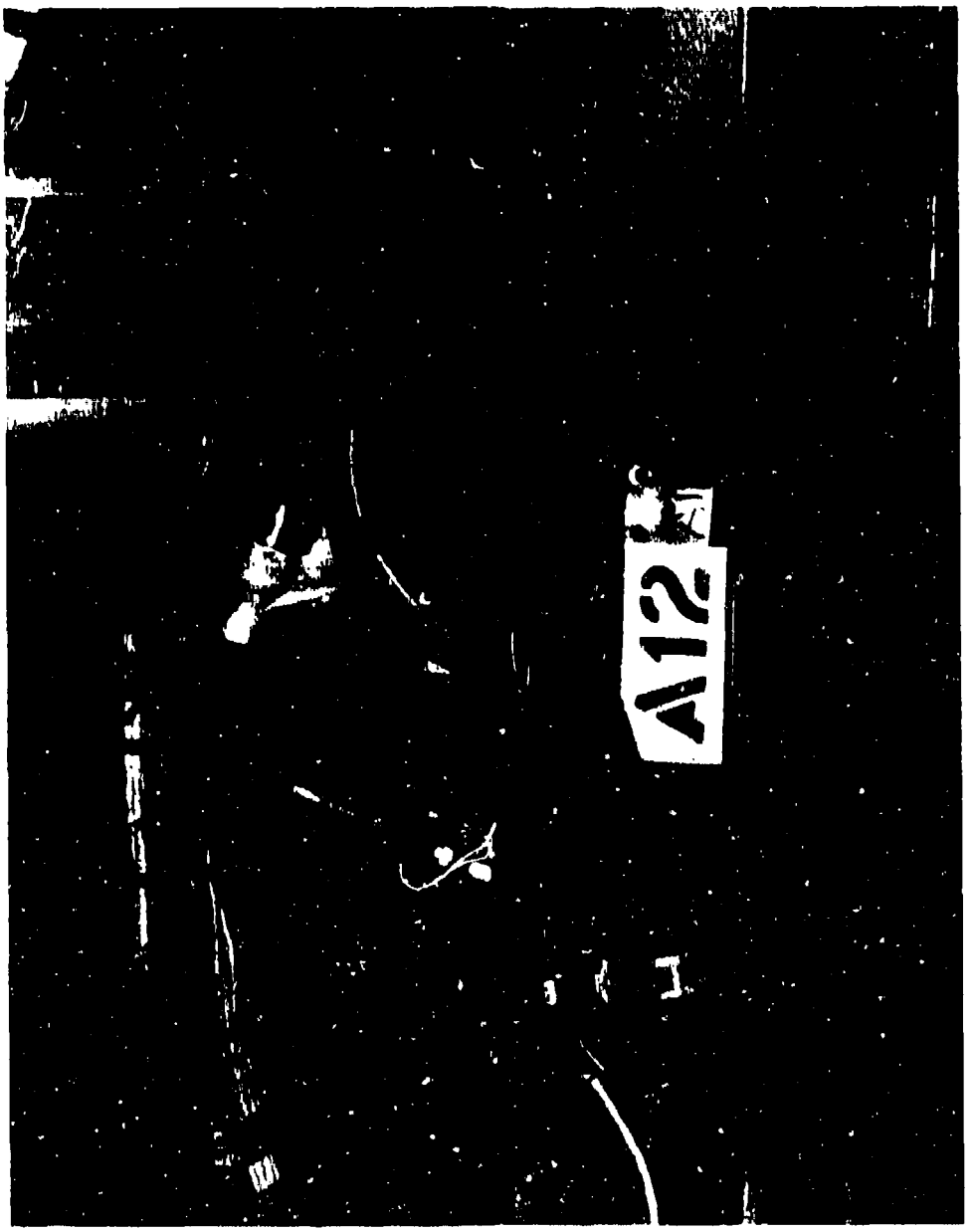


Figure A-13. Transducer Location Near ANT CONT AN/ARC-112

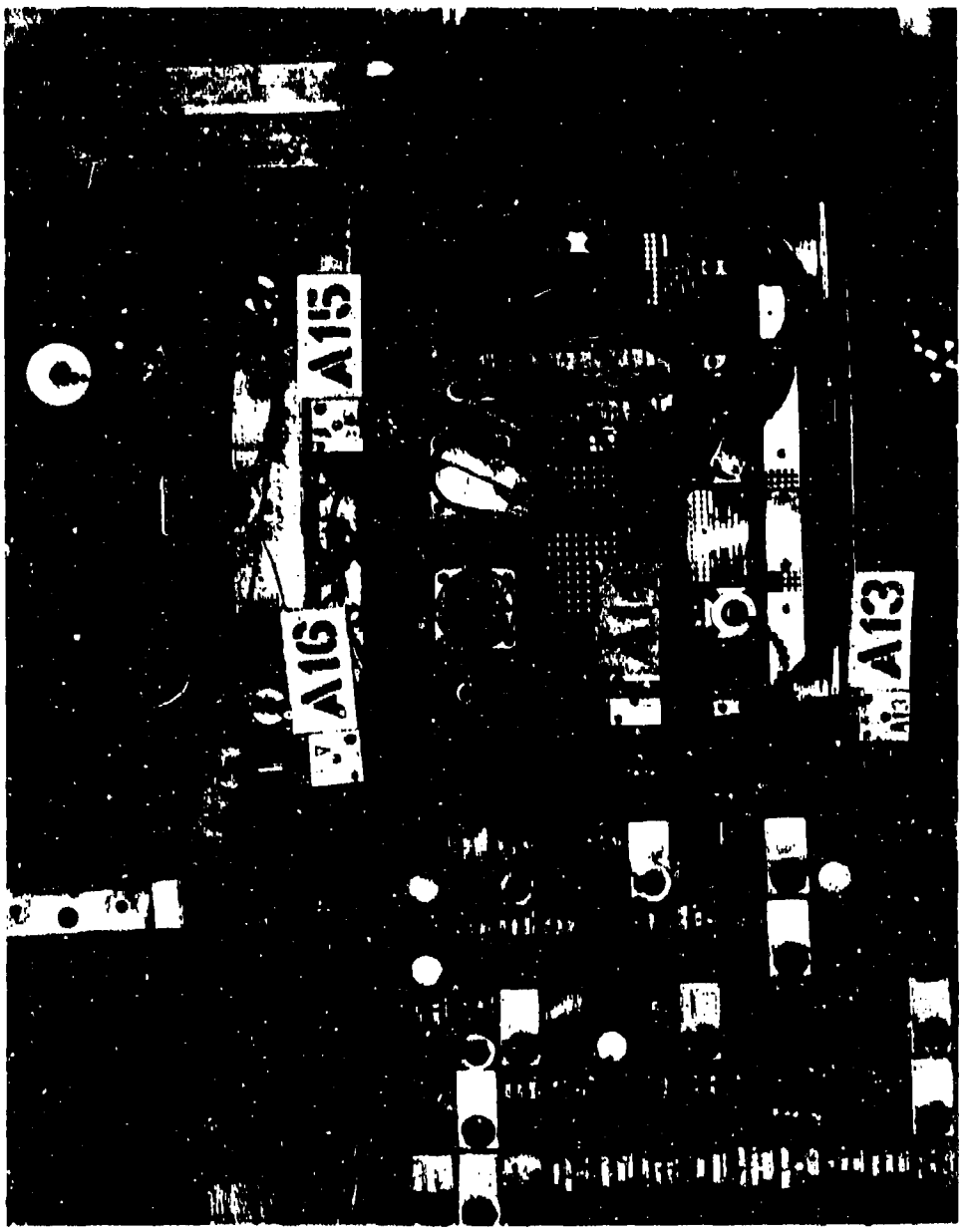


Figure A-4. Transducer Locations Near AN/ARN-52 Compartment

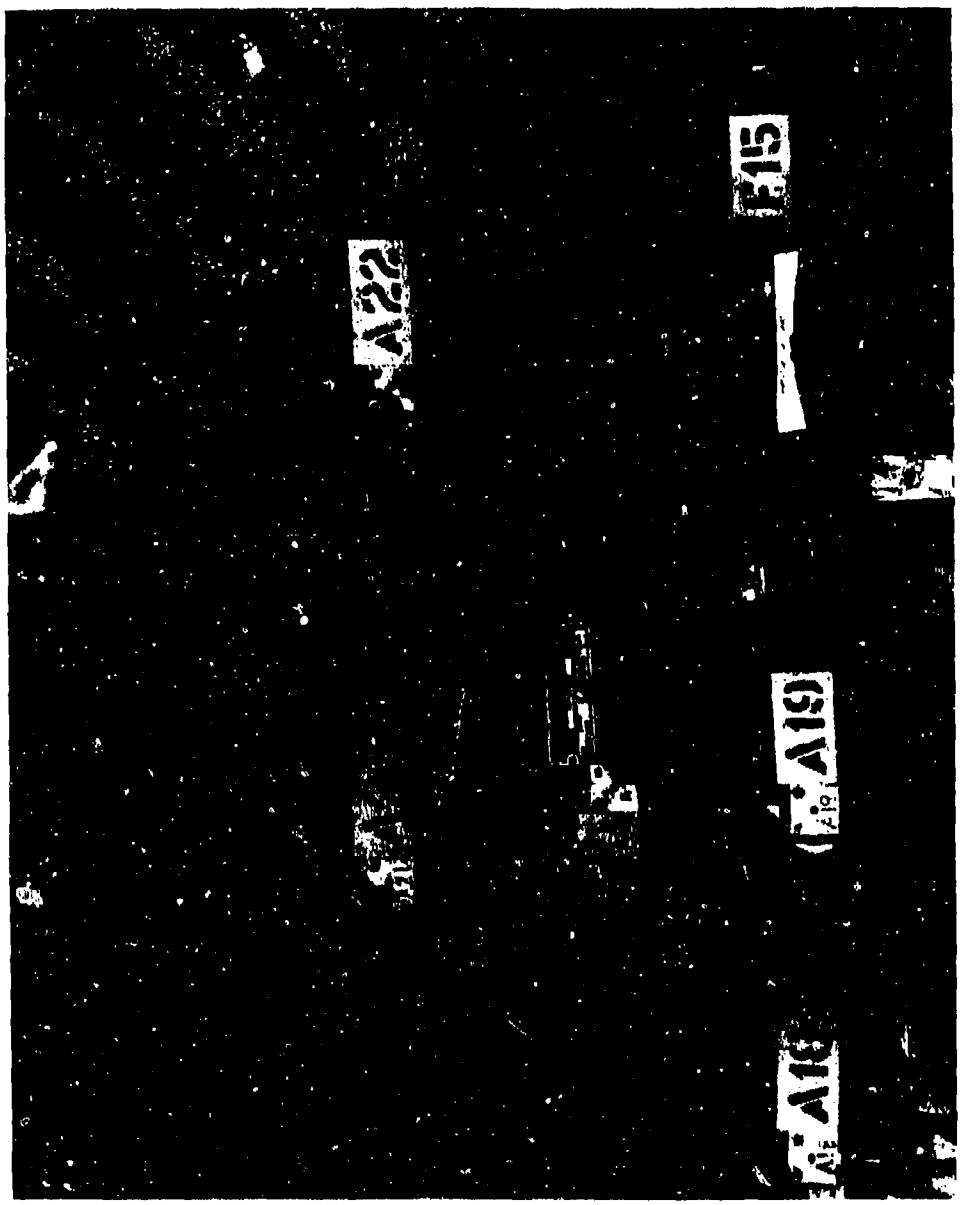


Figure A-15. Transducer Locations Near AMP Relay AN/ARA-50 Compartment

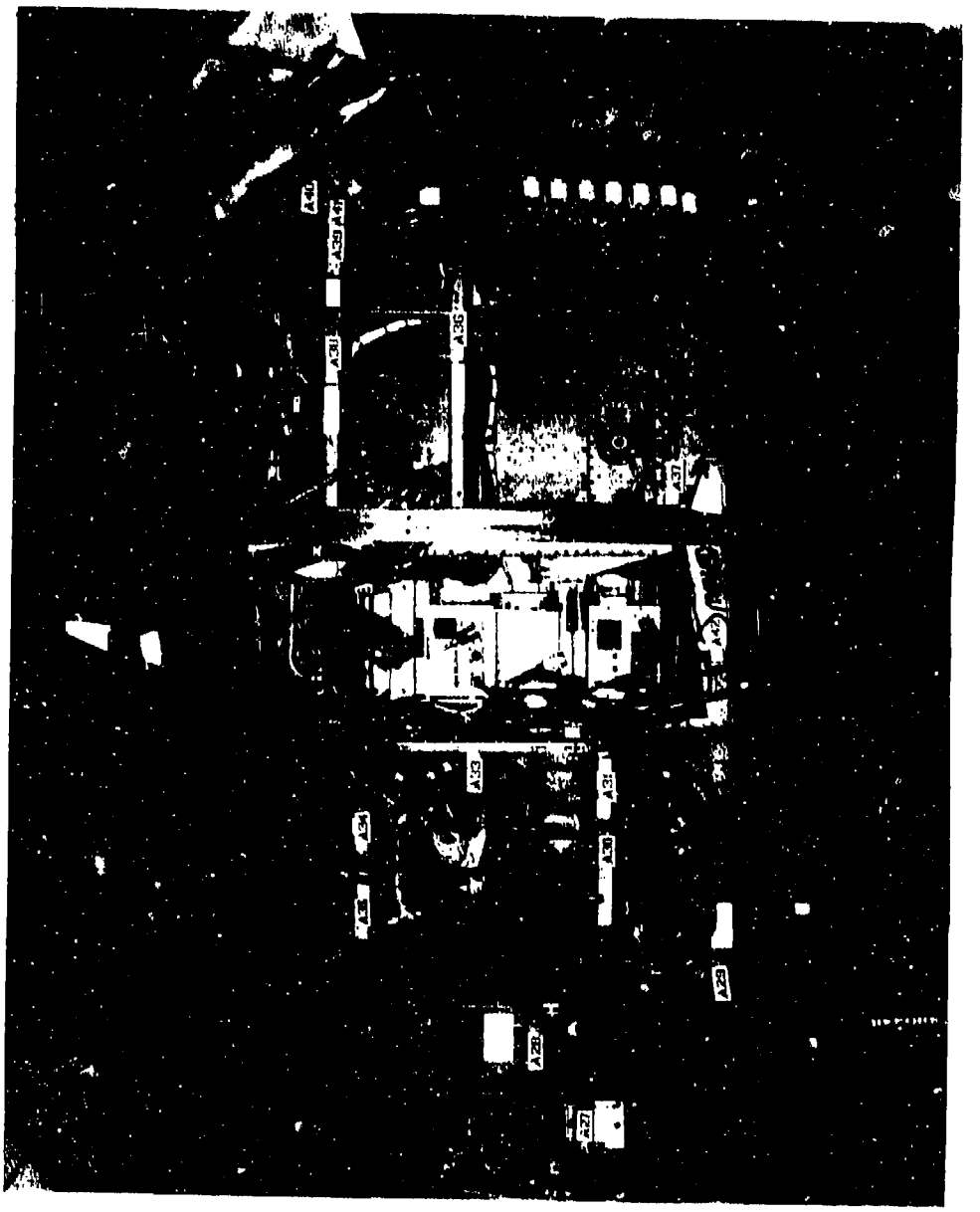


Figure A-16. Transducers Locations in Left Side Equipment Bay

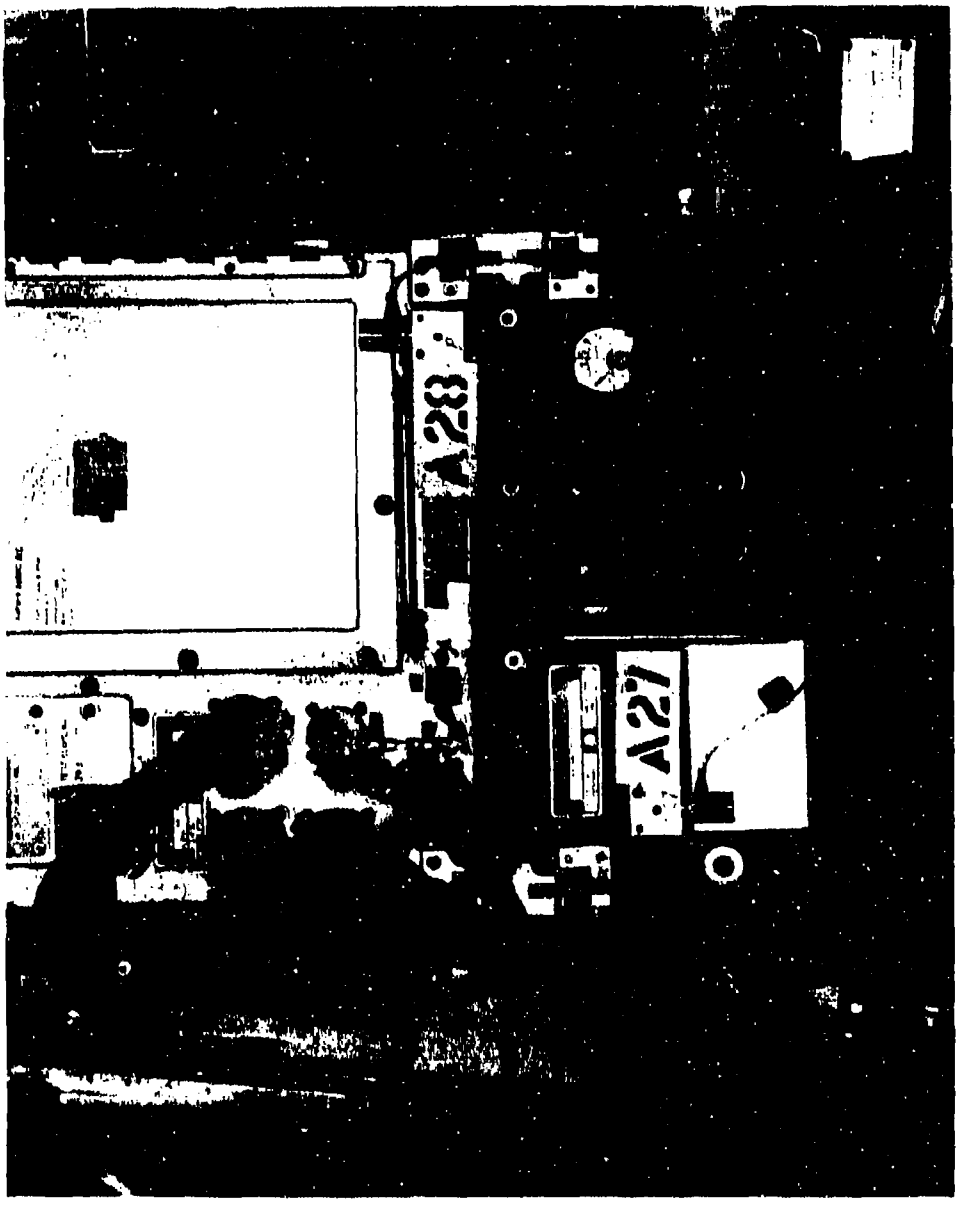


Figure A-17. Transducer Locations Near SYNCHRONIZER AN/APQ-113 Compartment

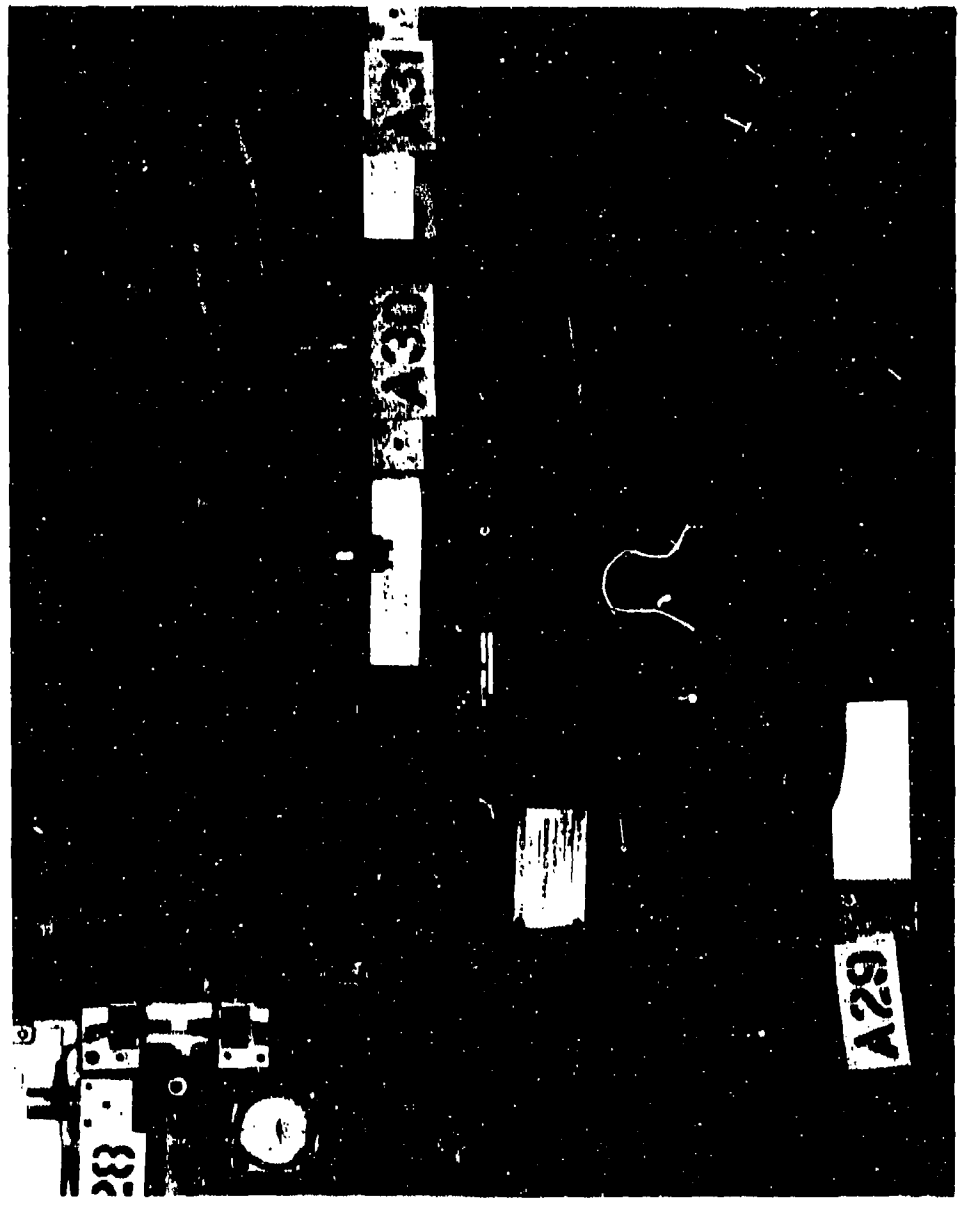


Figure A-18. Transducer Locations Near Flight Control Computer Compartment

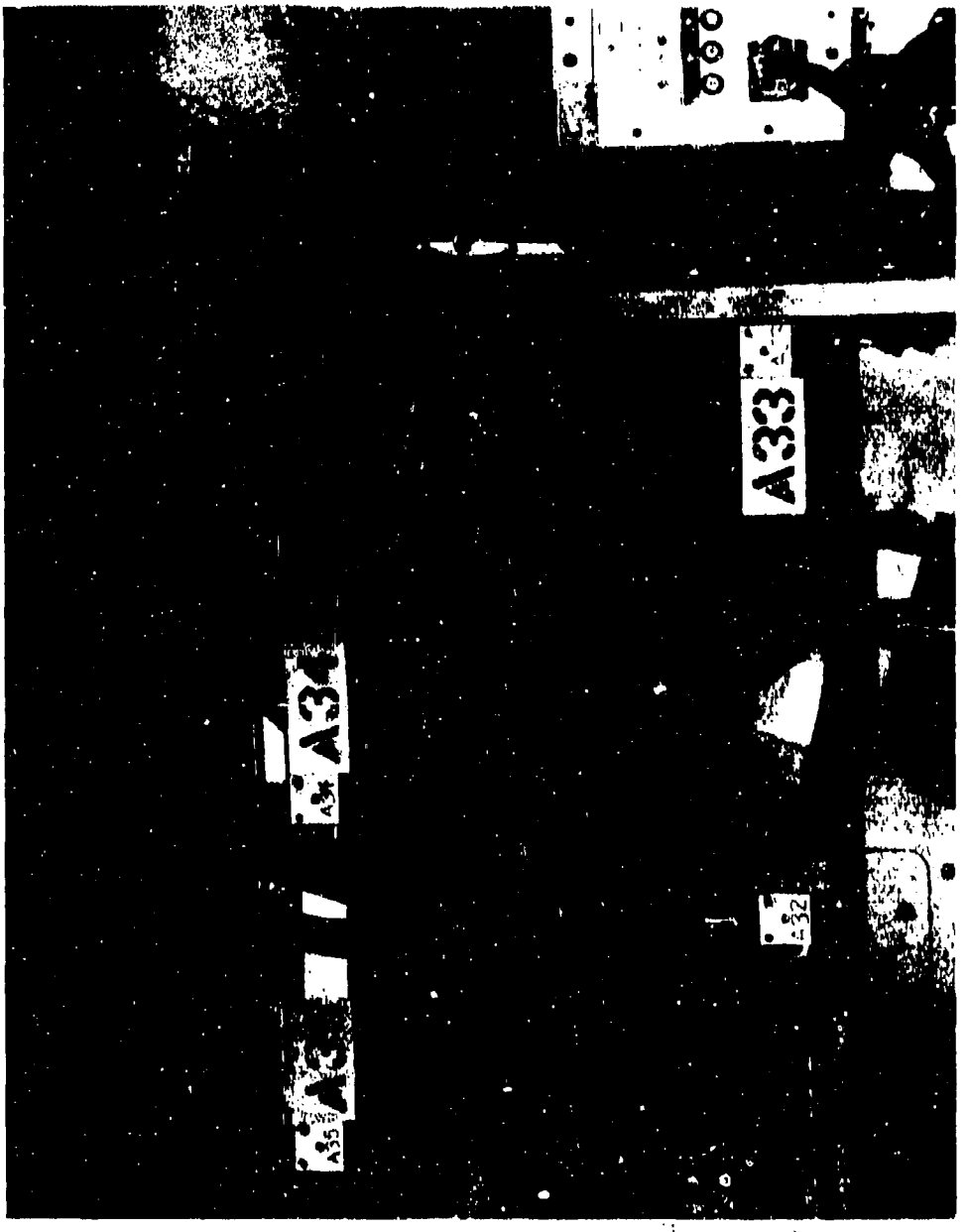


Figure A-19. Transducer Locations Above Flight Control Computer Compartment

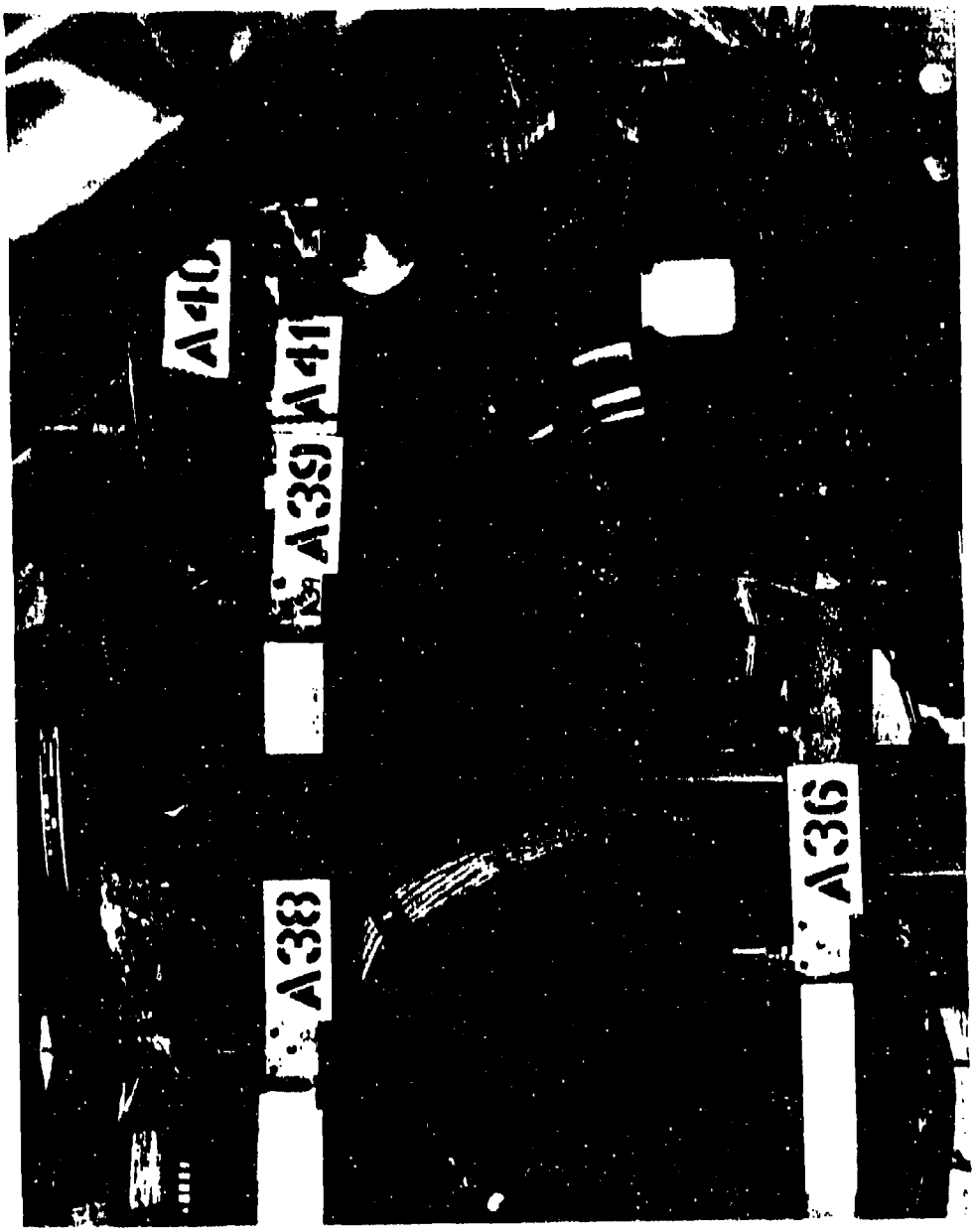


Figure A-20. Transducer Locations Near Computing Gyro AN/ASG-23 Compartment

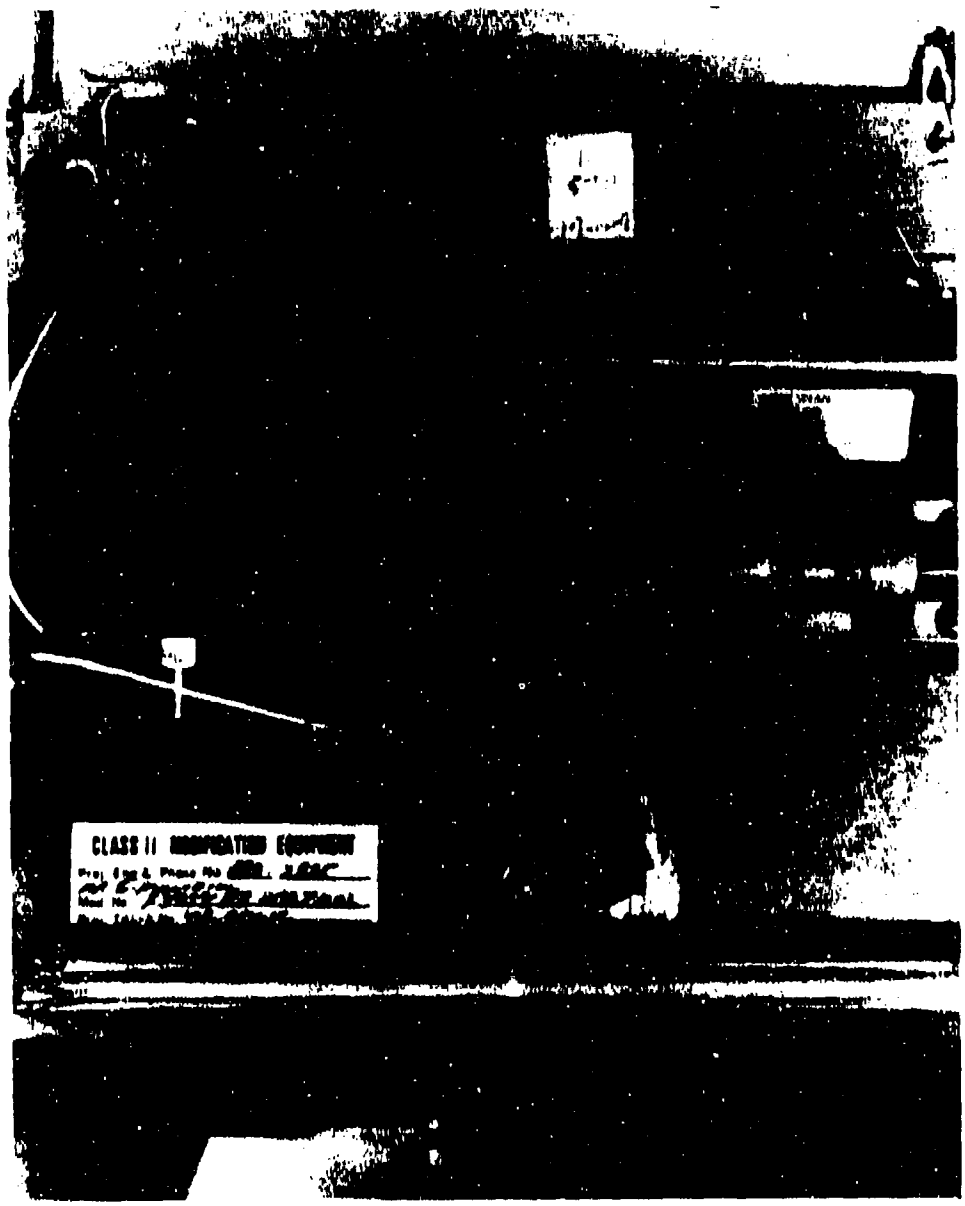


Figure A-21. Transducer Locations Near Amplifier AN/ALQ-94 Compartment

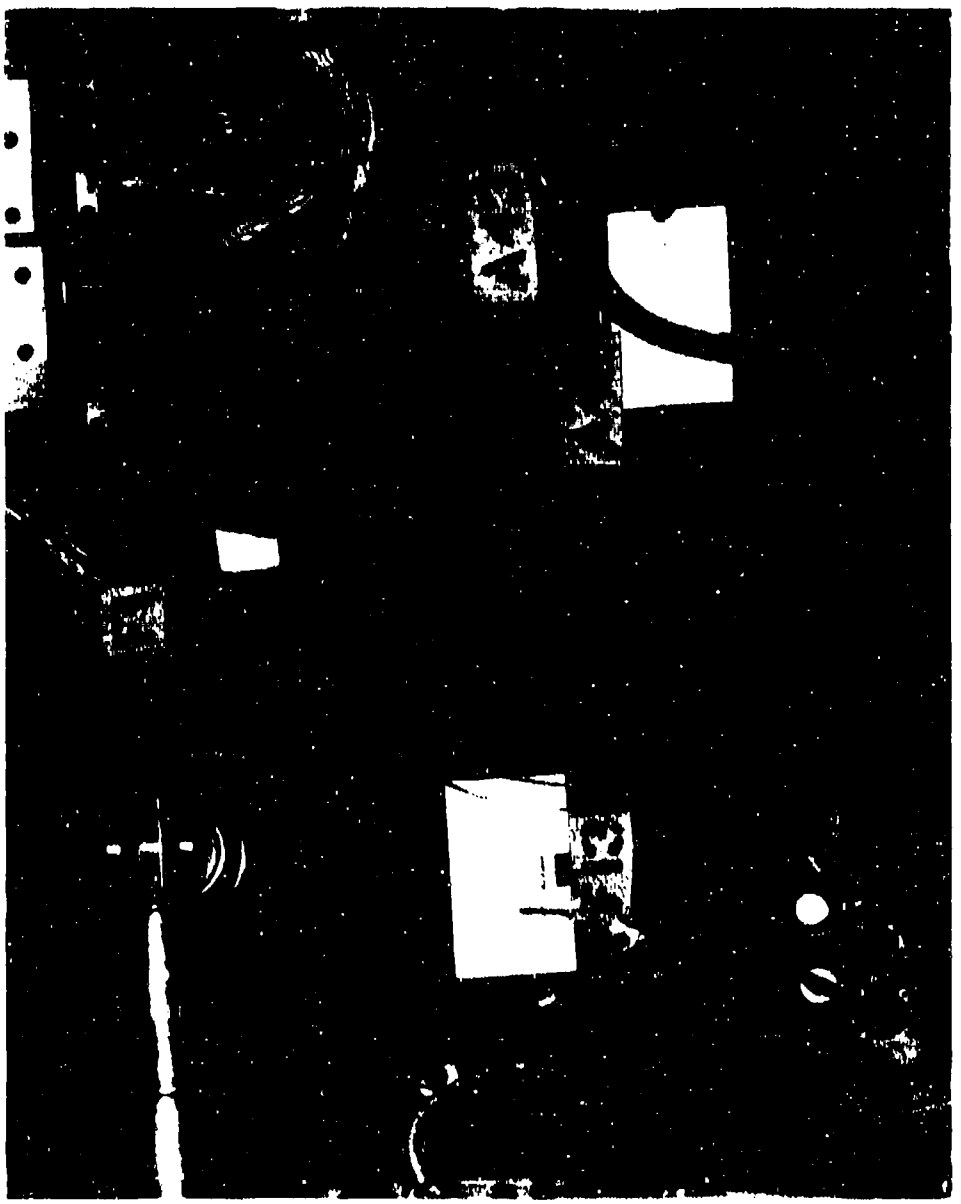


Figure A-22. Transducer Locations on Forward Side of Bulkhead Near Forward Looking Radar

Figure A-23. Transducer Location on Forward Bulkhead, Right Side Near Bottom Behind DC Power Panel

Figure A-24. Transducer Location on Forward Bulkhead, Left Side Aft of Gen. Control Compartment

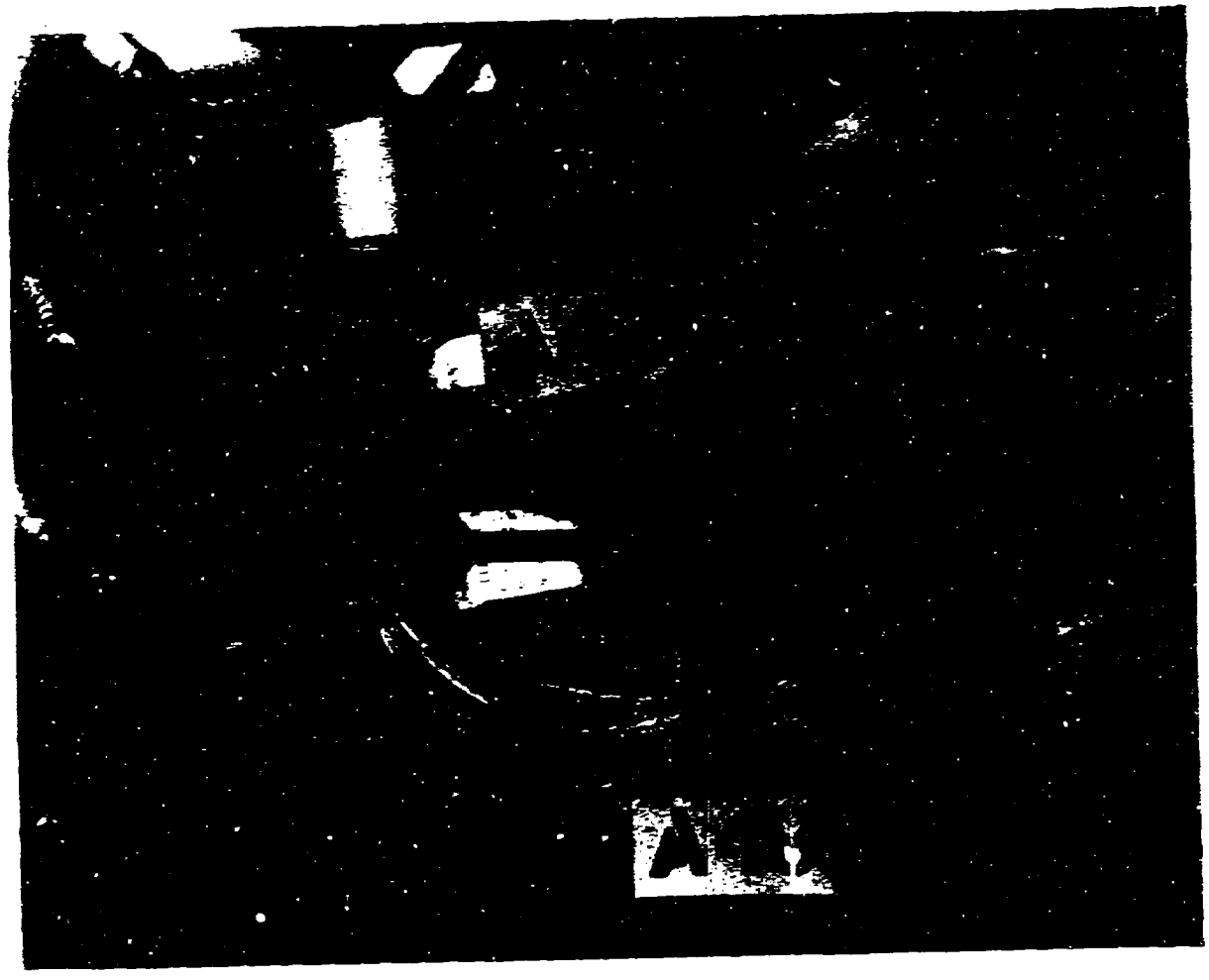


Figure A-25. Transducer Locations on Forward Bulkhead on Left Side Aft of AC Power Transfer Assy Compartment

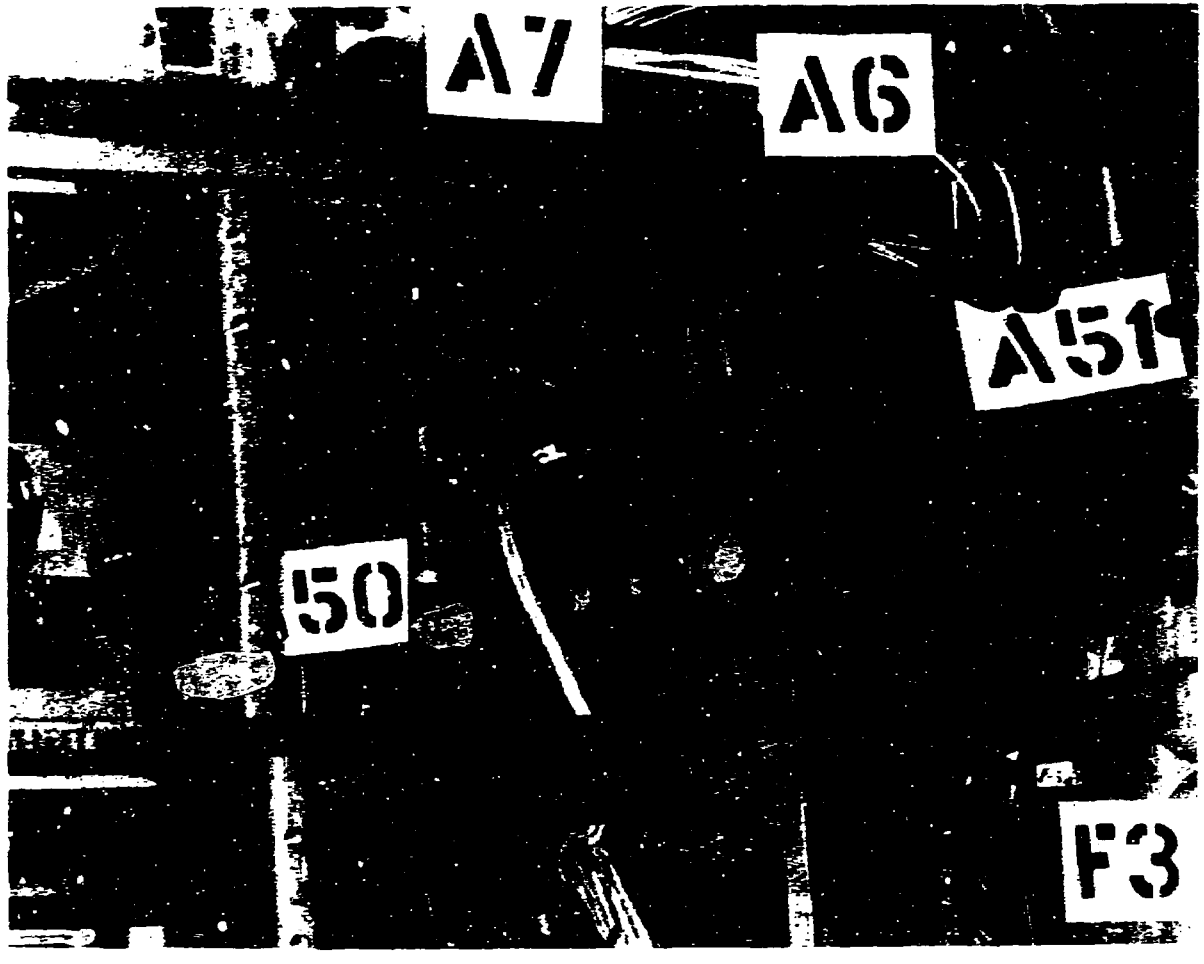


Figure A-26. Transducer Locations on Nose Bulkhead, Right Side Near Top of TFR Computer Compartment

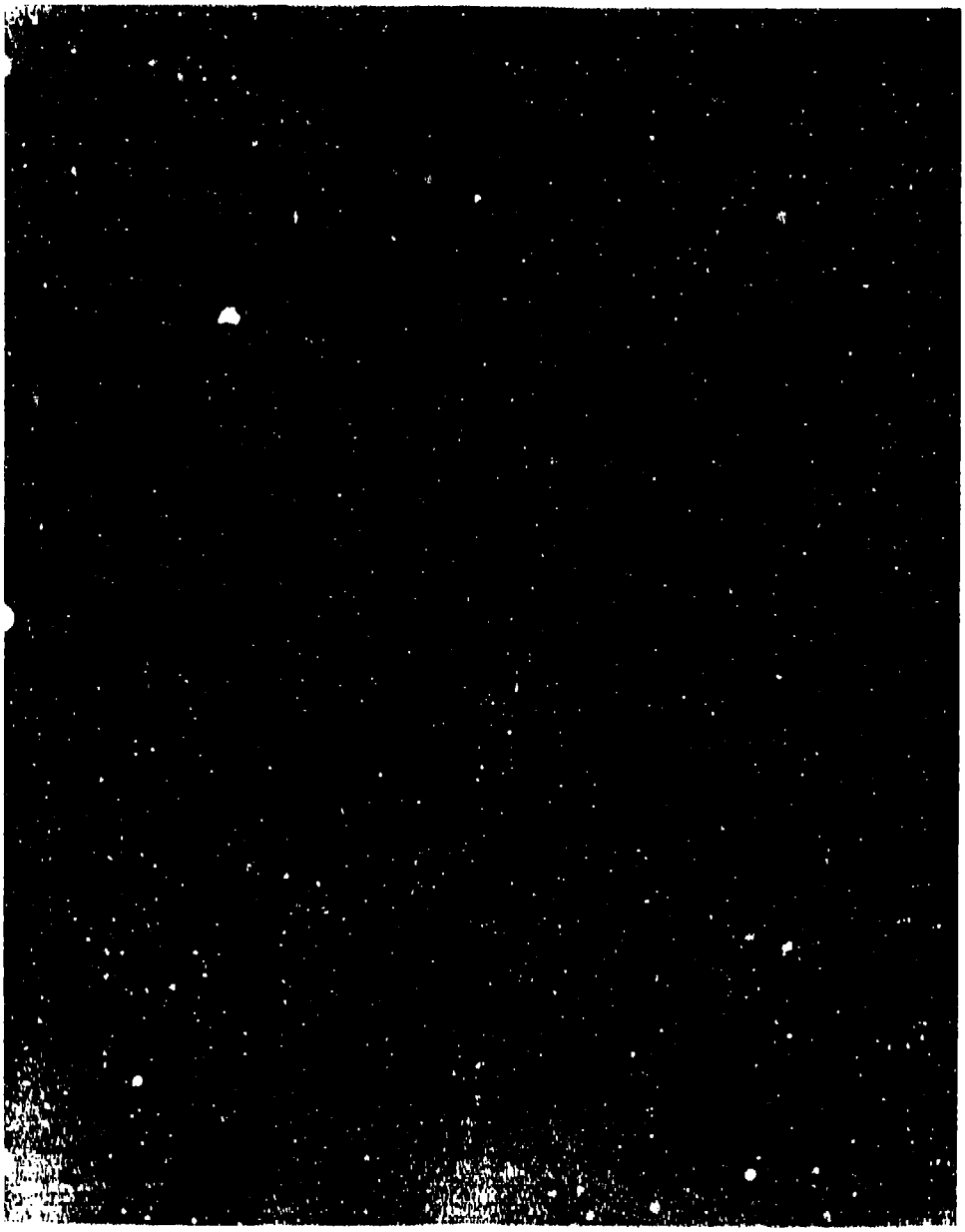


Figure A-27. Transducer Location on Right Side of Fuselage 65 inches Aft of Nose Tip in Radome

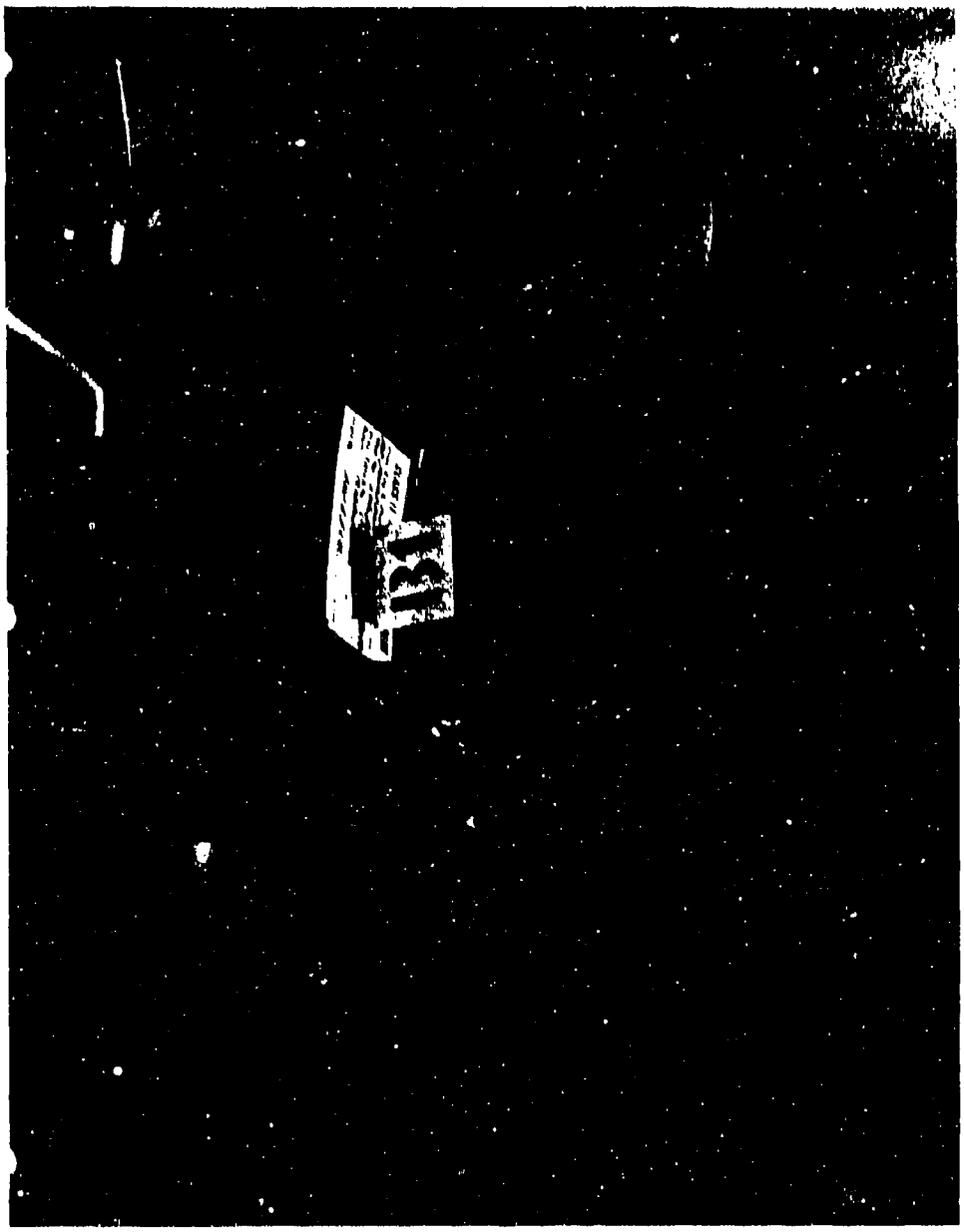


Figure A-28. Transducer Locations on Right Side of Fuselage 65 inches Aft of Nose Tip

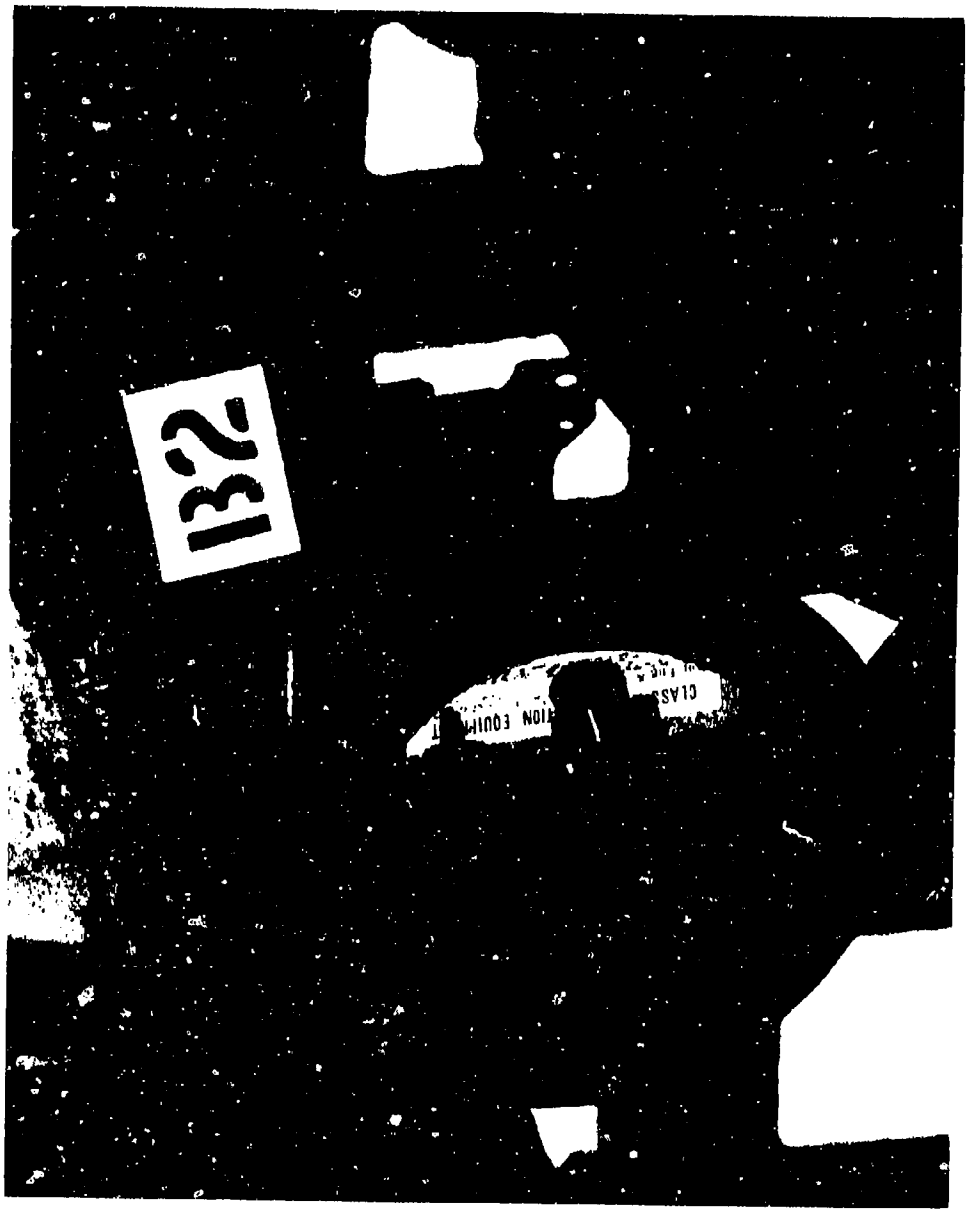


Figure A-29. Transducer Locations on Underside of Fuselage at FS 145

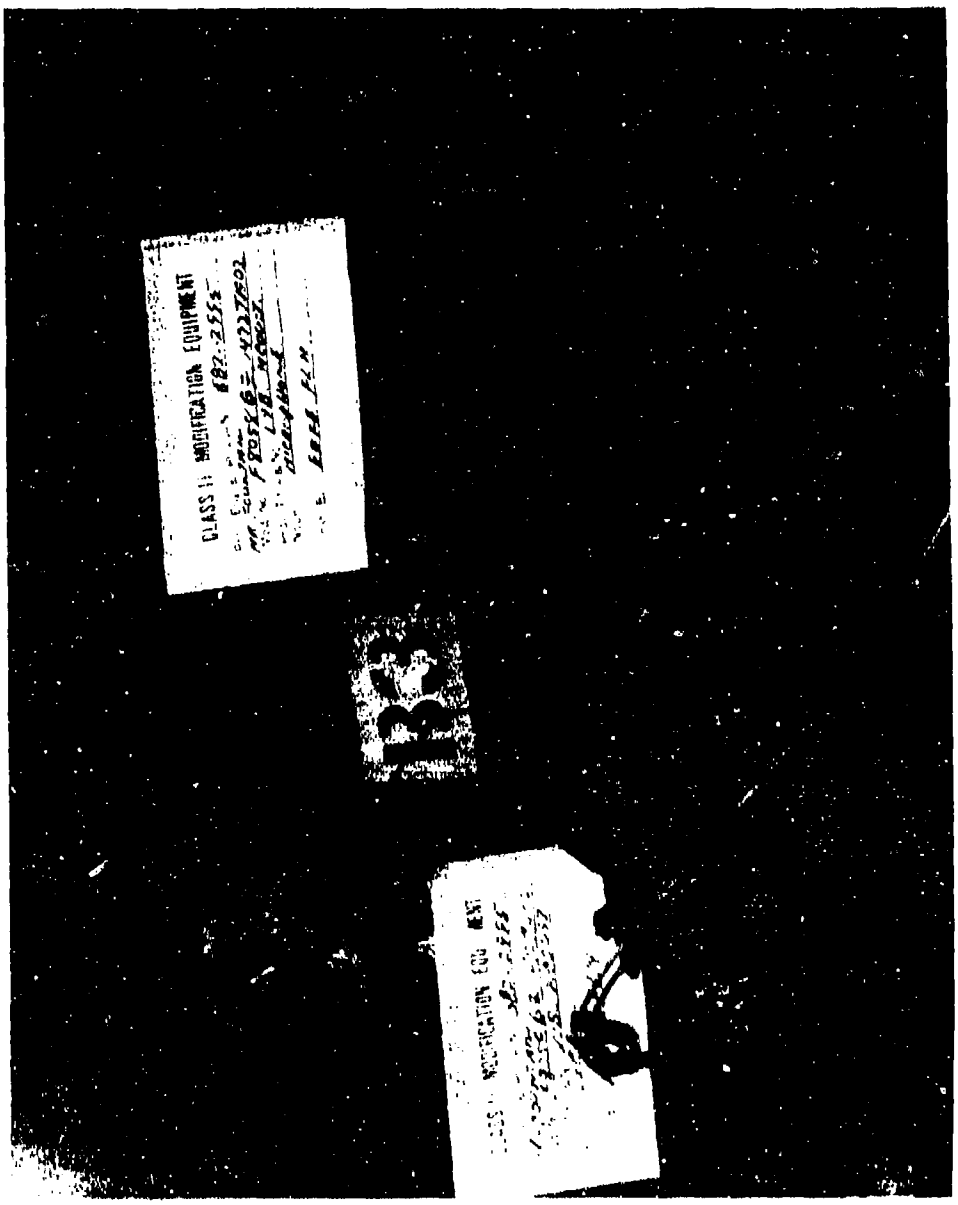


Figure A-30. Transducer Locations on Fuselage in Front of Cockpit at FS 155

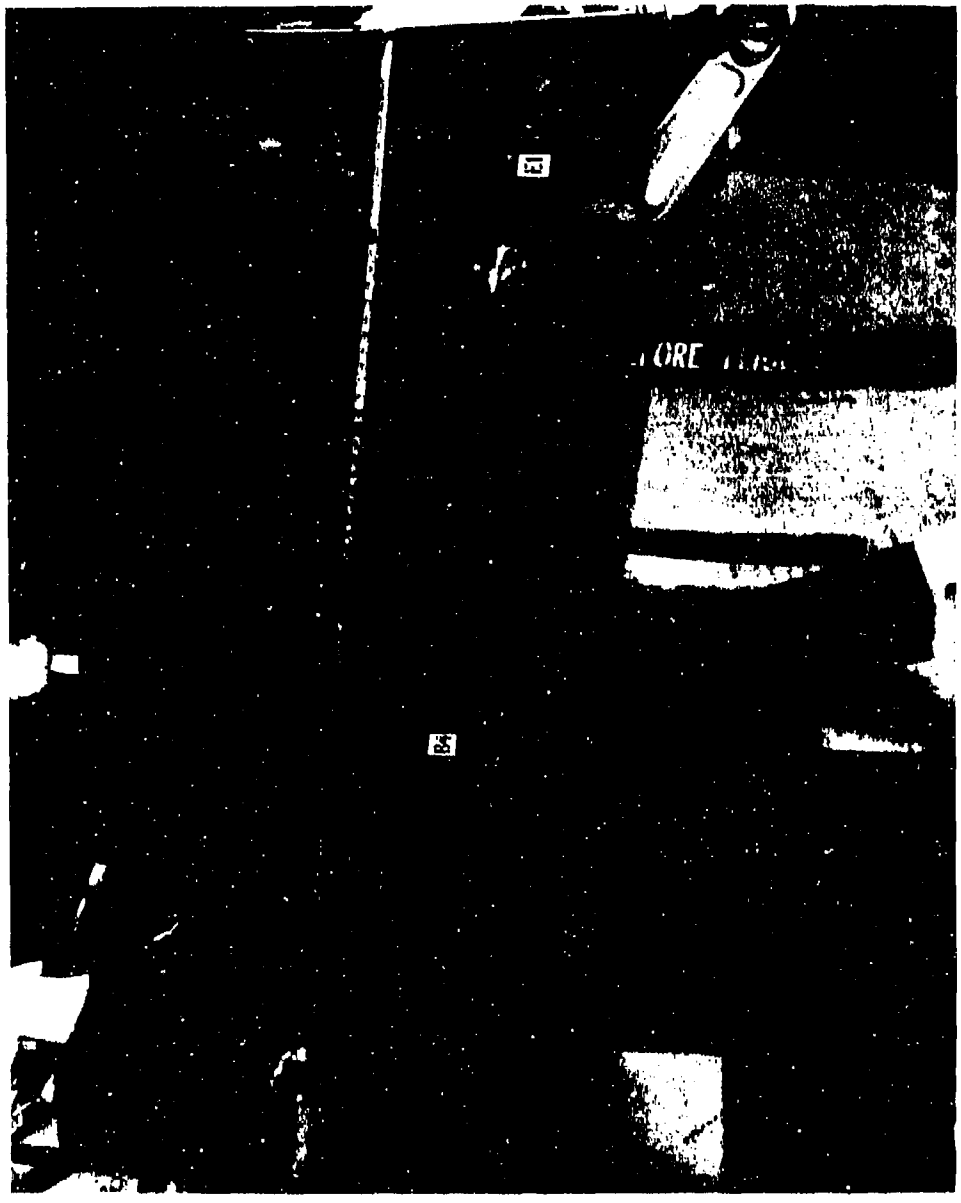


Figure A-31. Transducer Locations on Nose Gear Door

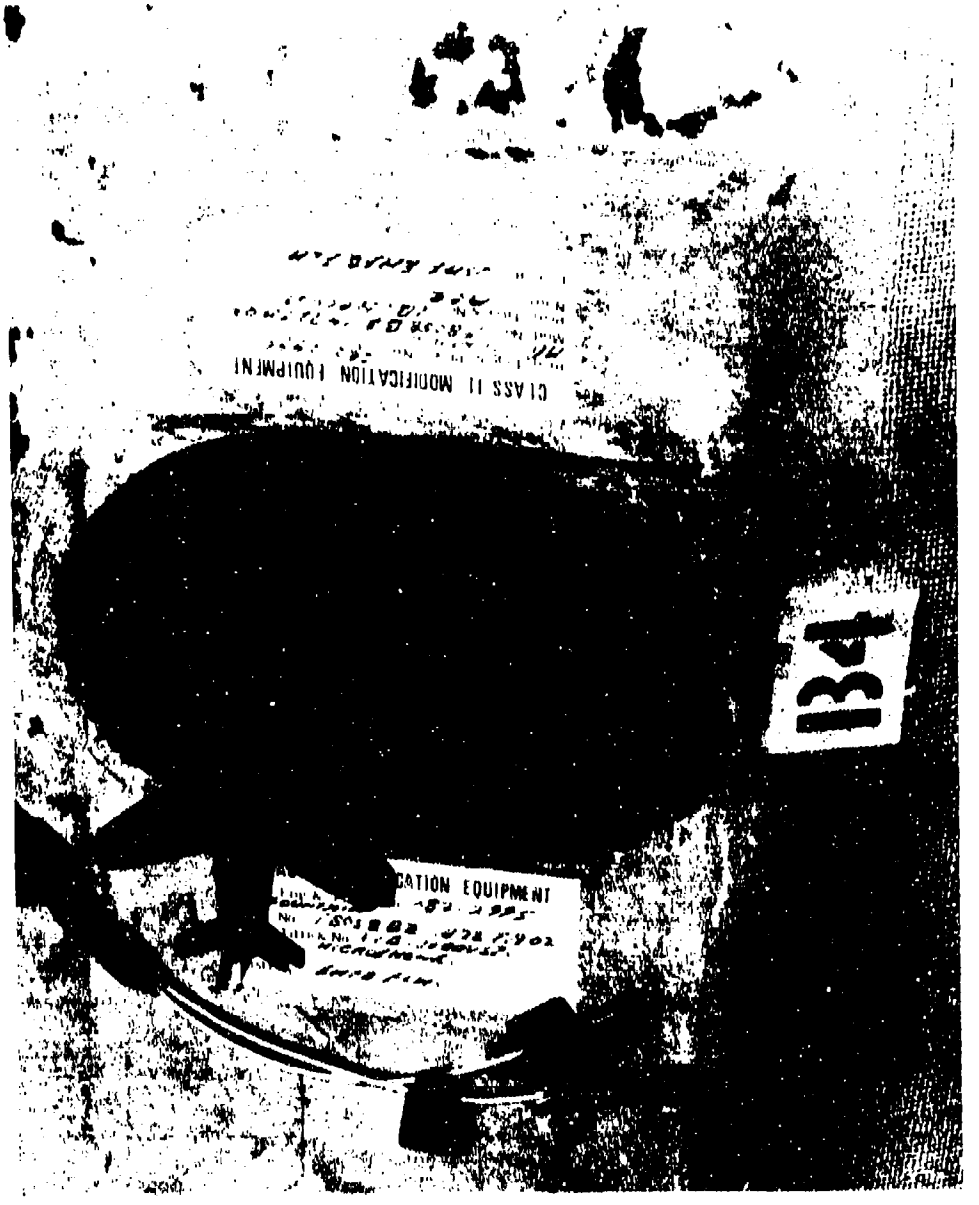


Figure A-32. Transducer Locations on Nose Gear Door (Backside)

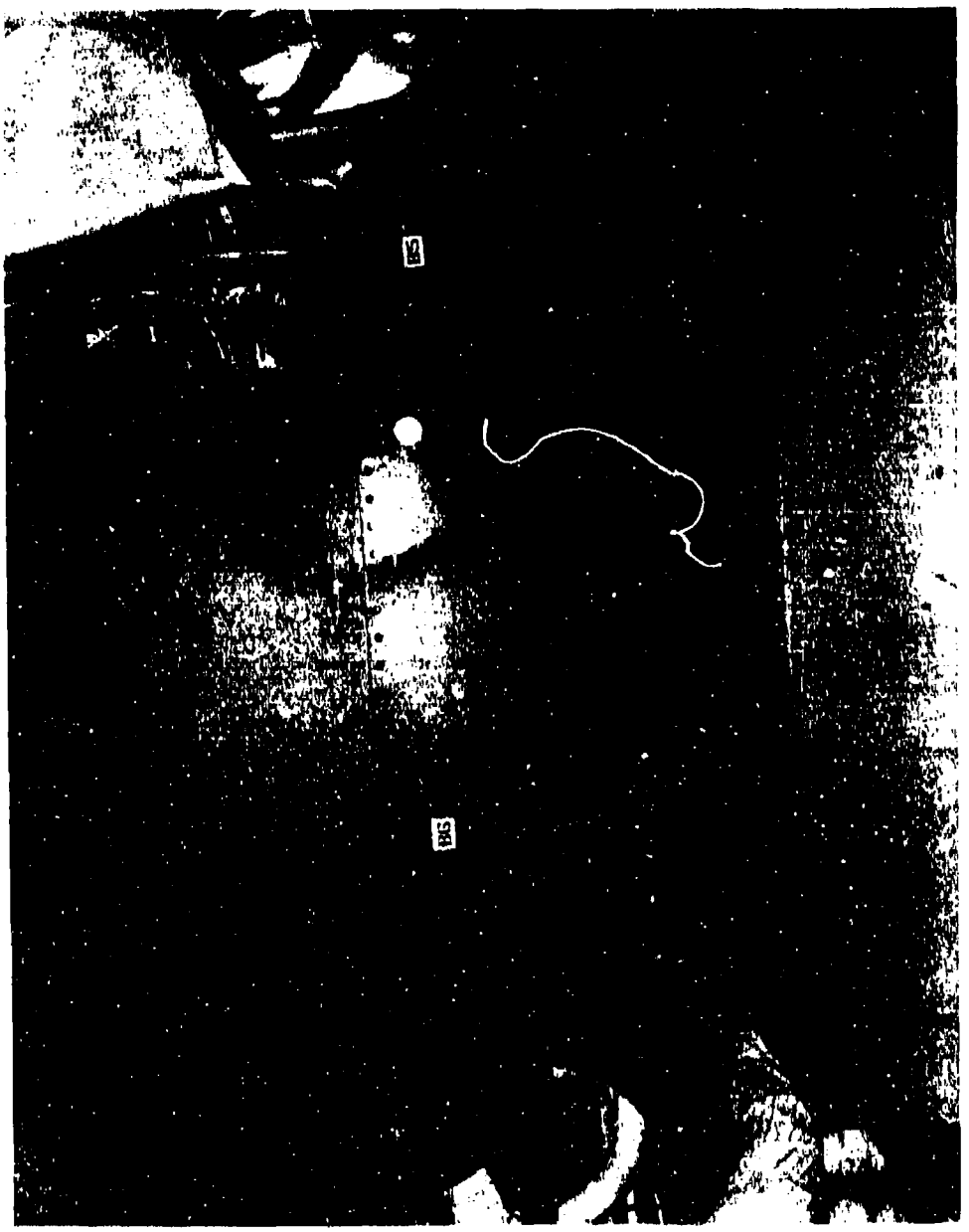


Figure A-33. Transducer Locations on Right Side of Fuselage Below Canopy

Figure A-34. Transducer Locations on Right Side of Fuselage Below Canopy

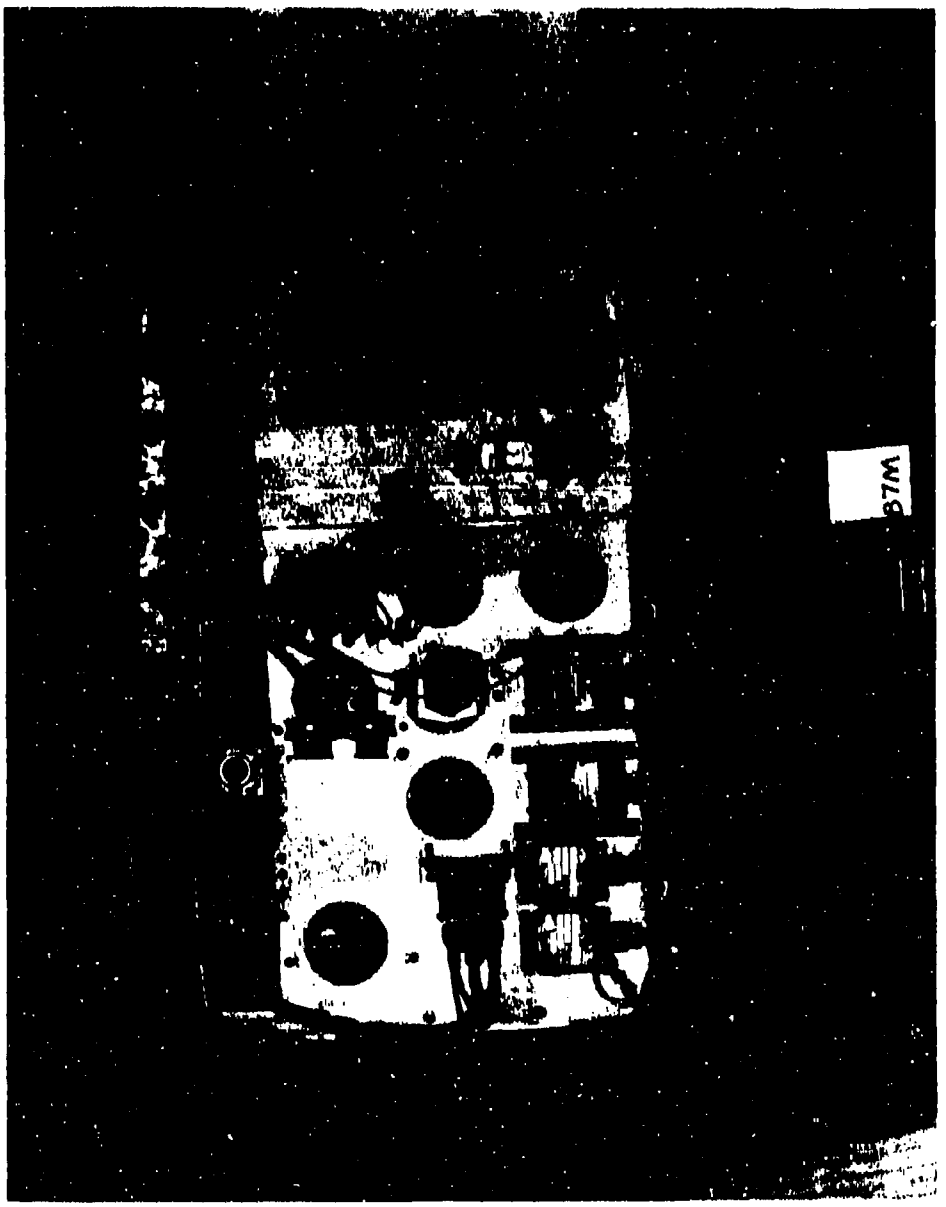


Figure A-35. Transducer Locations on Right Side of Fuselage At FS 357

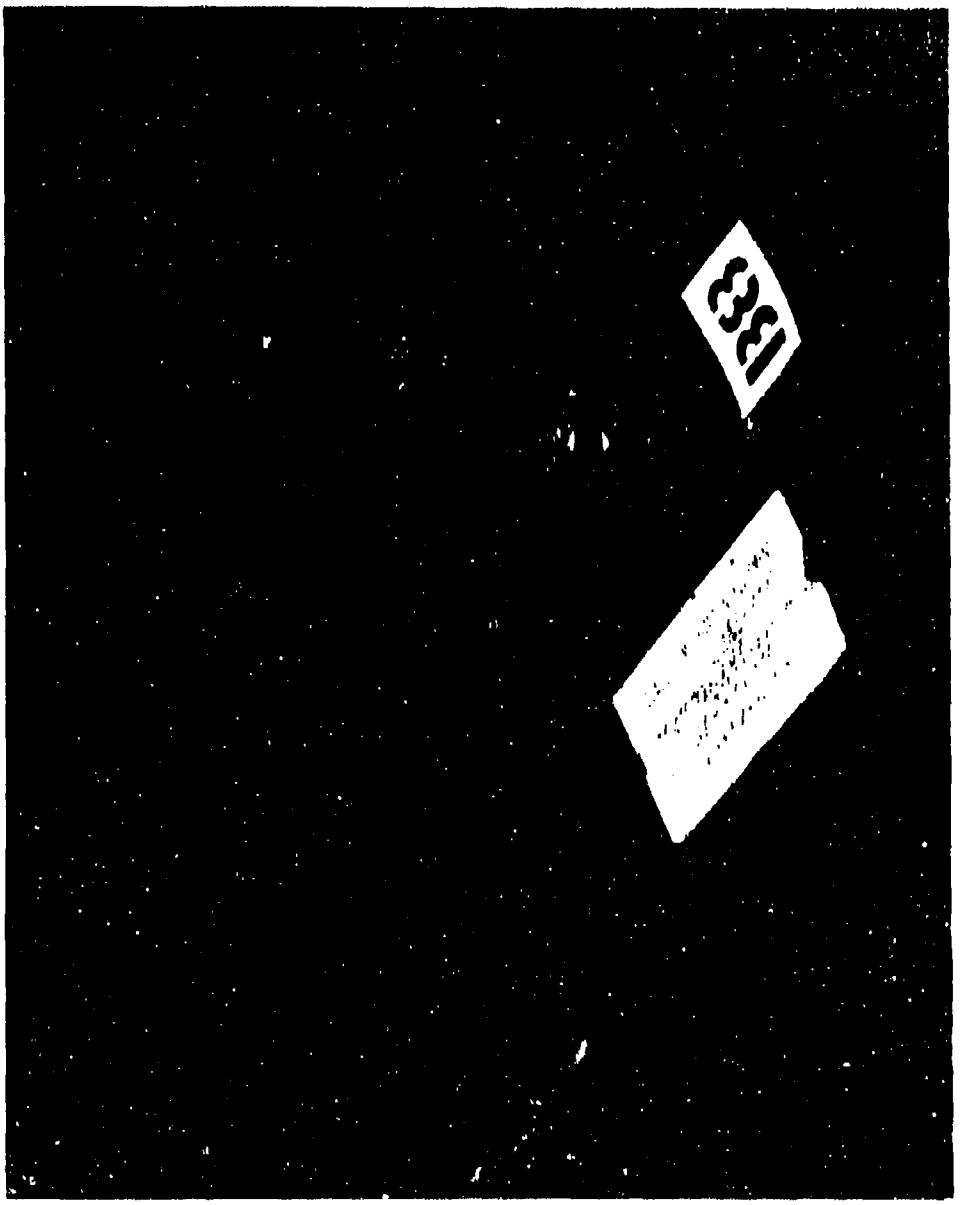


Figure A-36. Transducer Locations on Top of Fuselage Aft of Canopy at FS 370

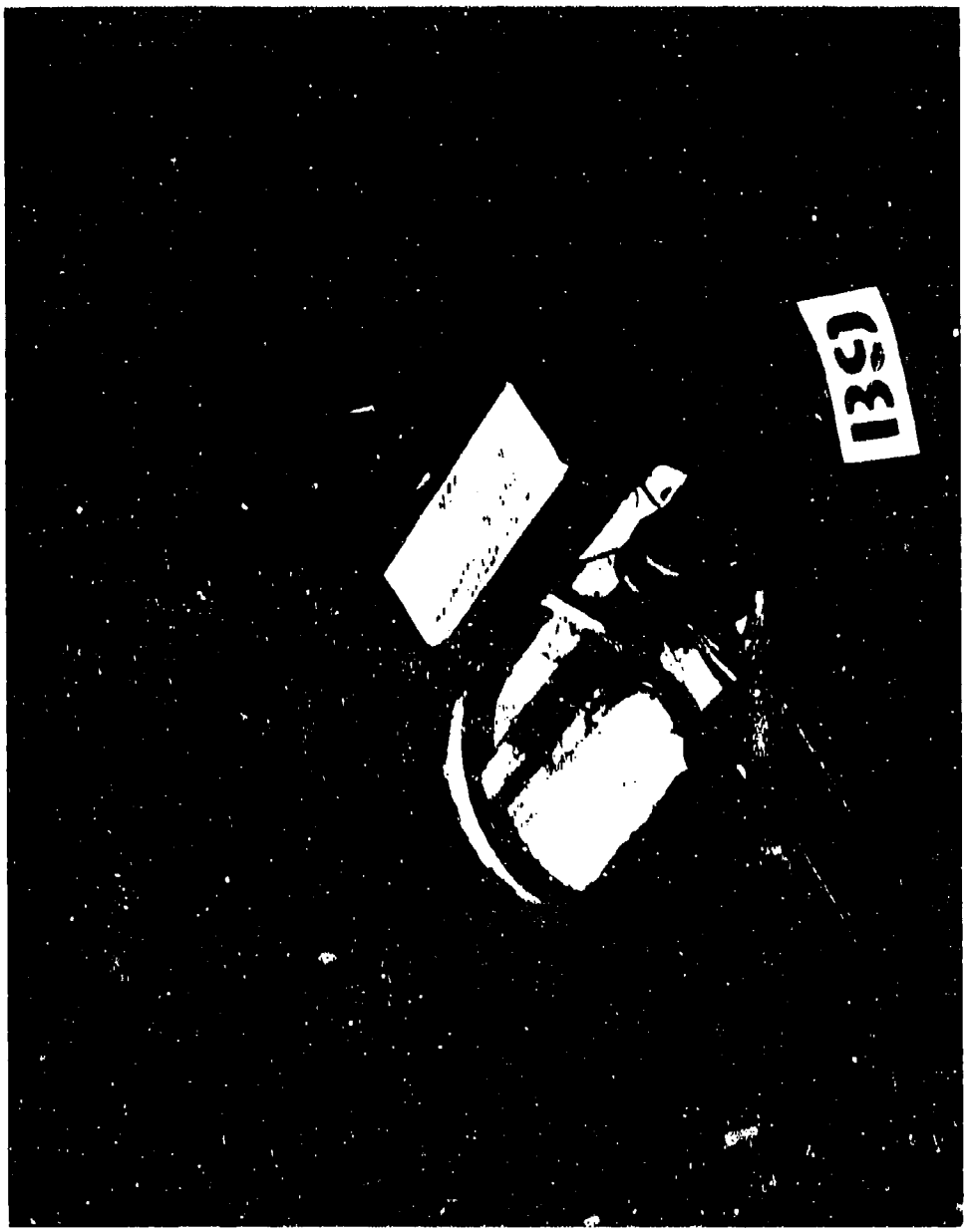


Figure A-37. Transducer Locations on Left Horizontal Stabilator

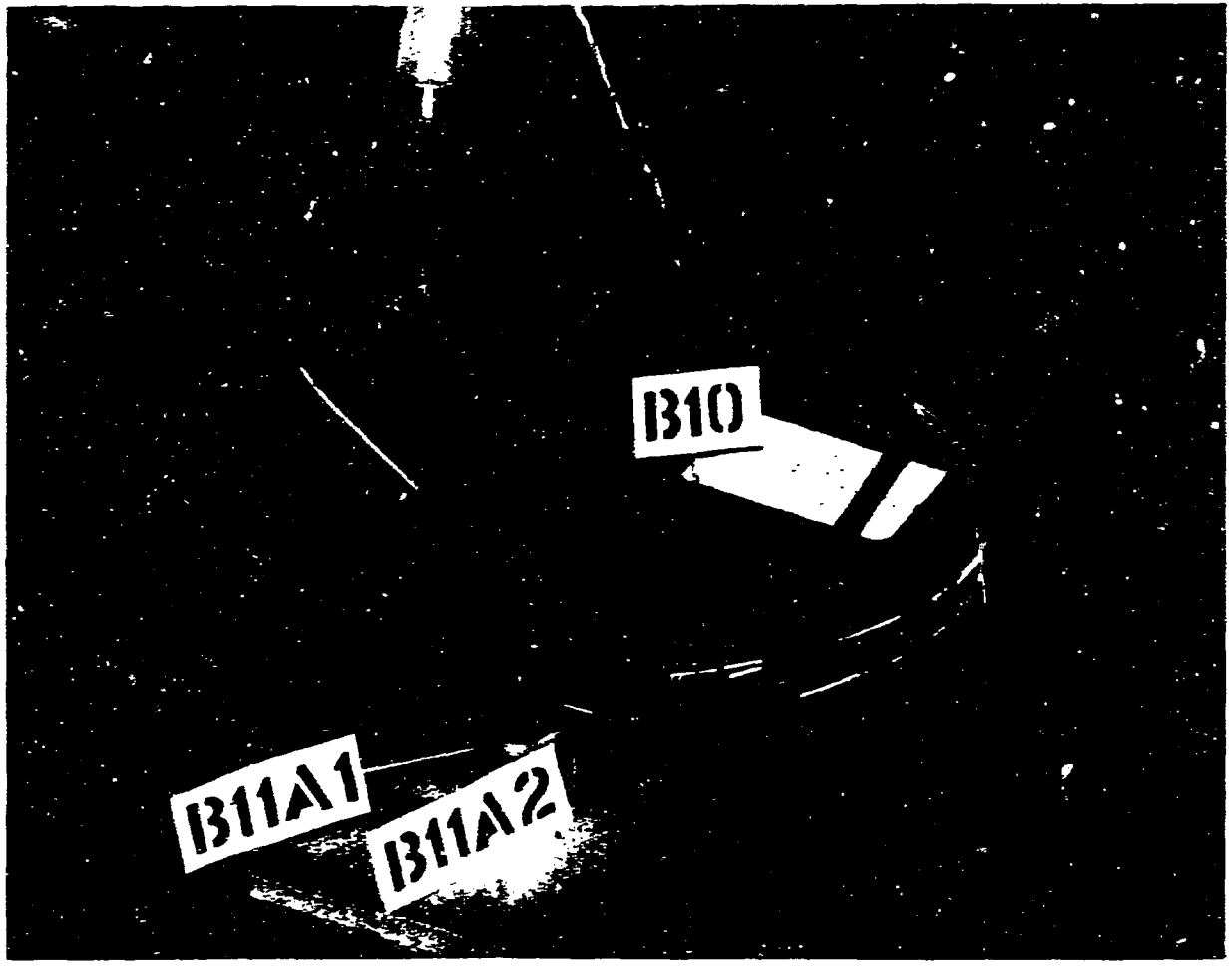


Figure A-38. Transducer Locations on Forward Left Side of Vertical Stabilator Near Fuselage

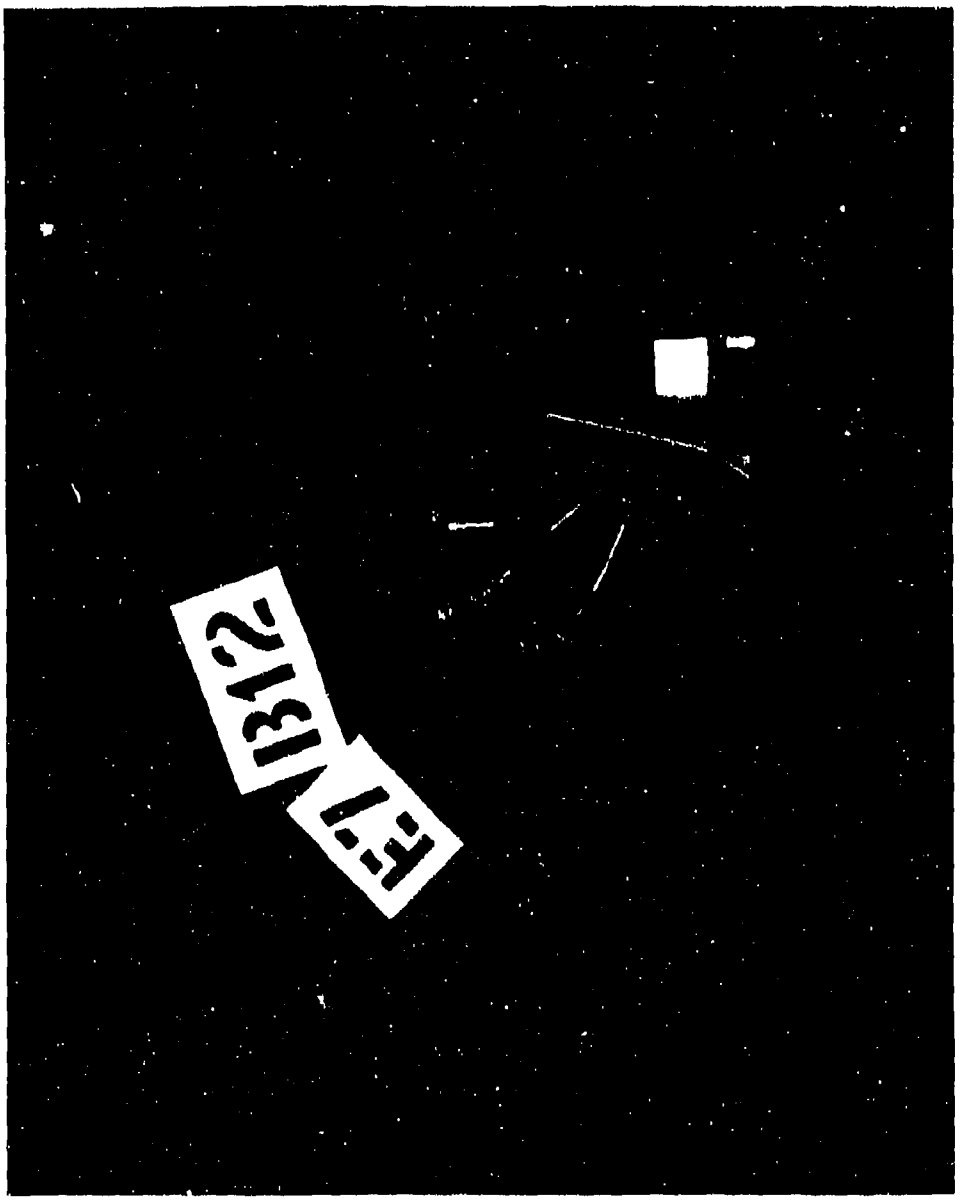


Figure A-39. Transducer Locations on Top of Vertical Stabilator

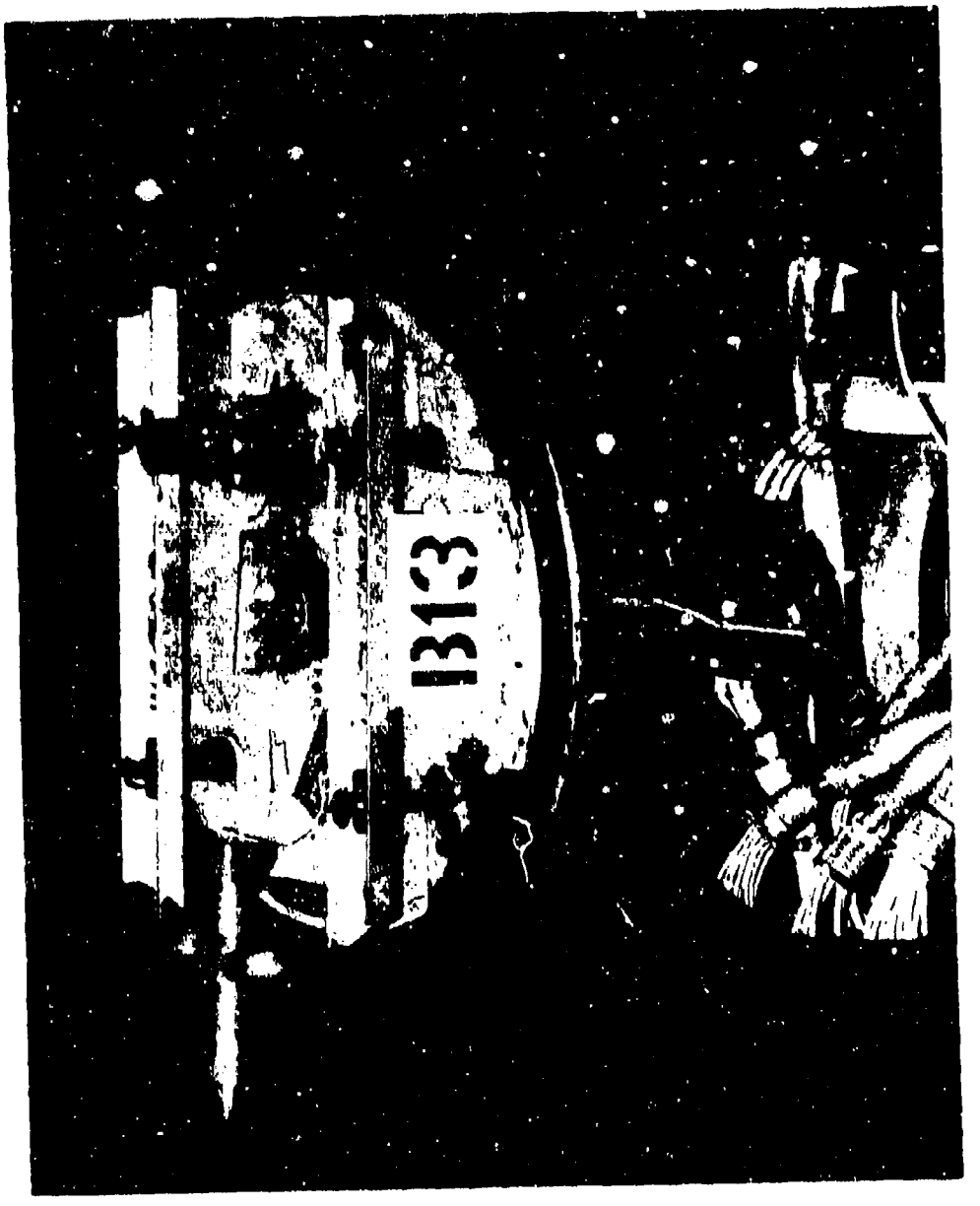


Figure A-40. Transducer Locations on Left Inboard Wing

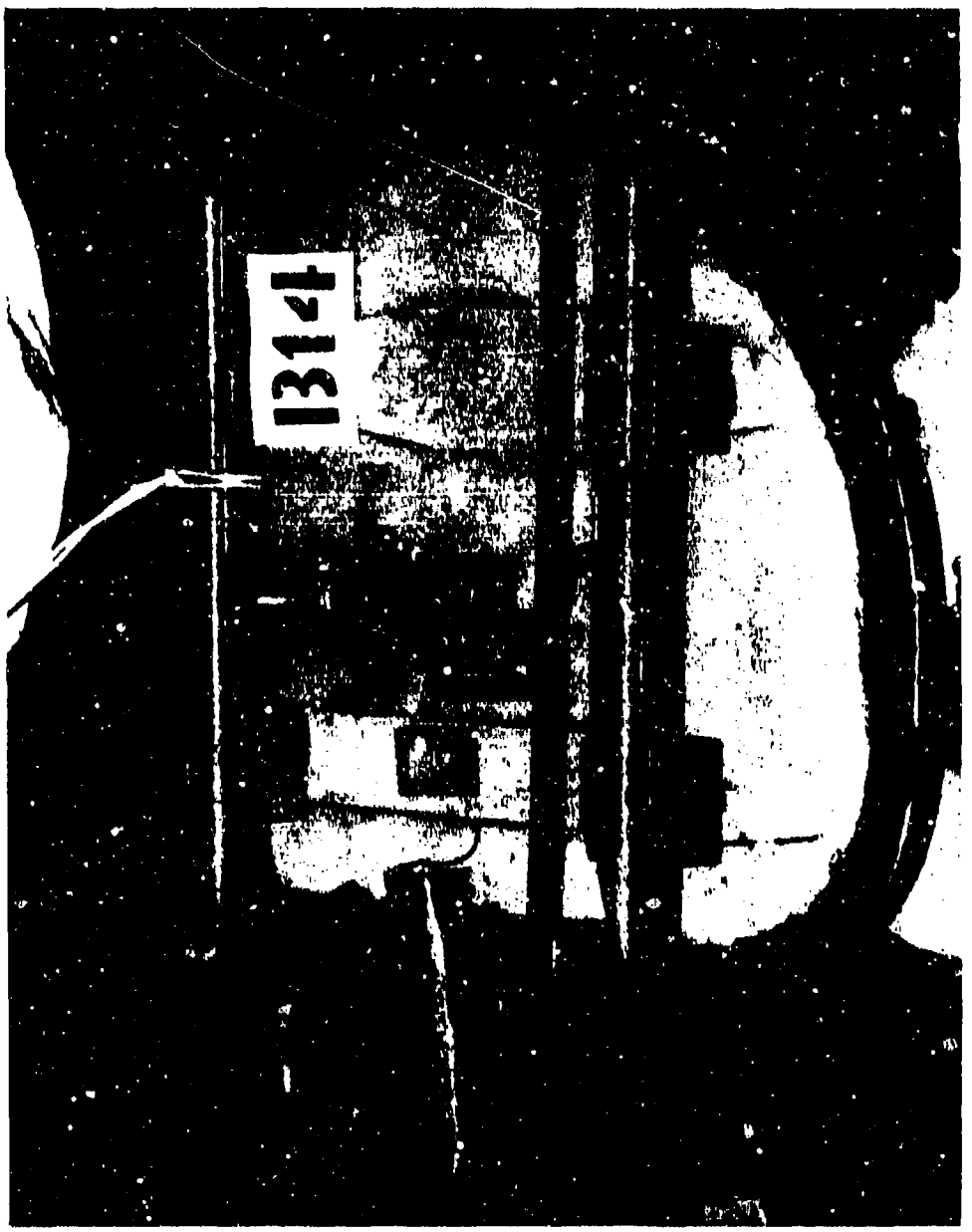


Figure A-41. Transducer Locations on Left Center Wing

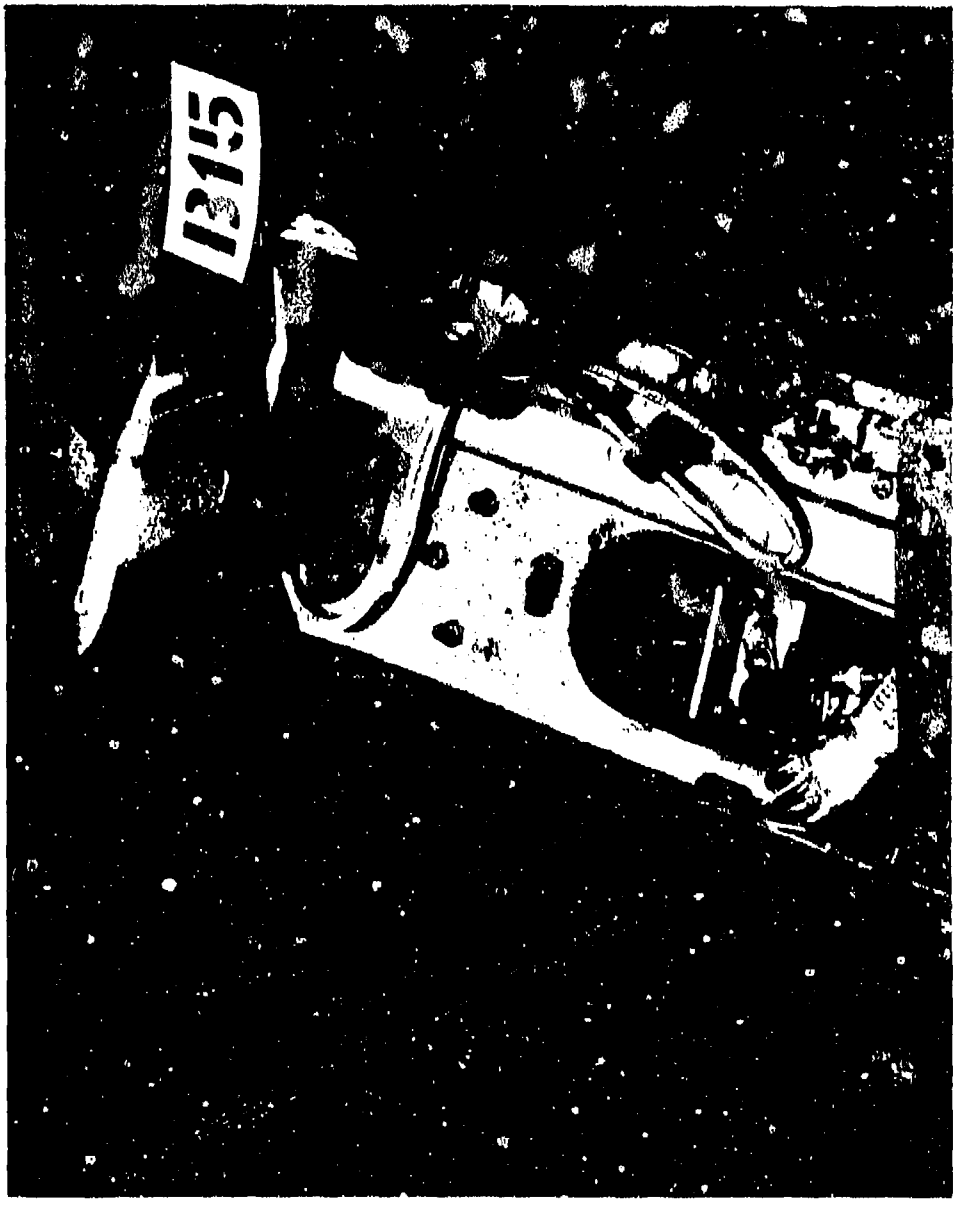


Figure A-42. Transducer Locations on Left Outboard Wing

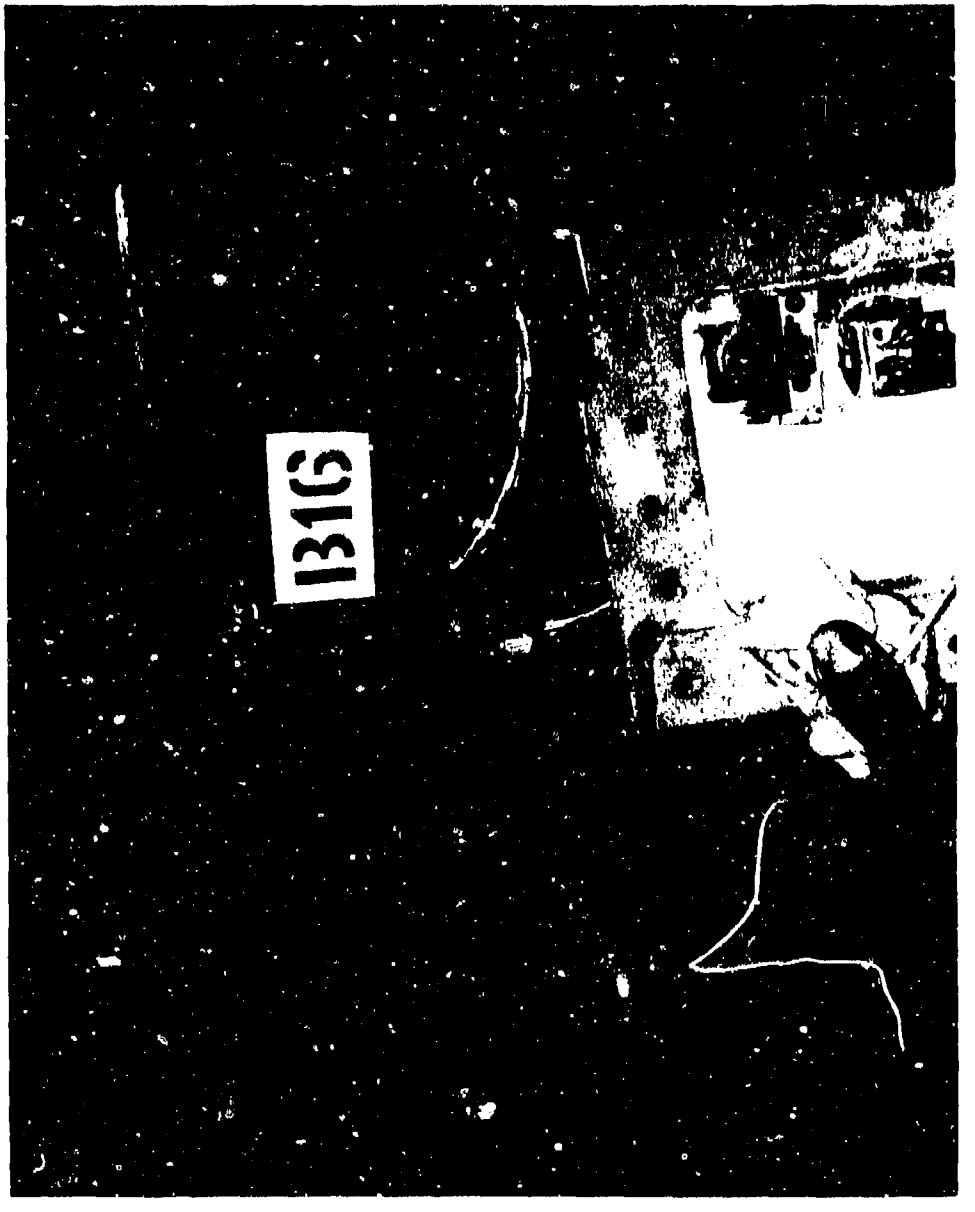


Figure A-43. Transducer Locations on Left Tip of Wing

Figure A-44. Transducer Locations in Weapons Bay

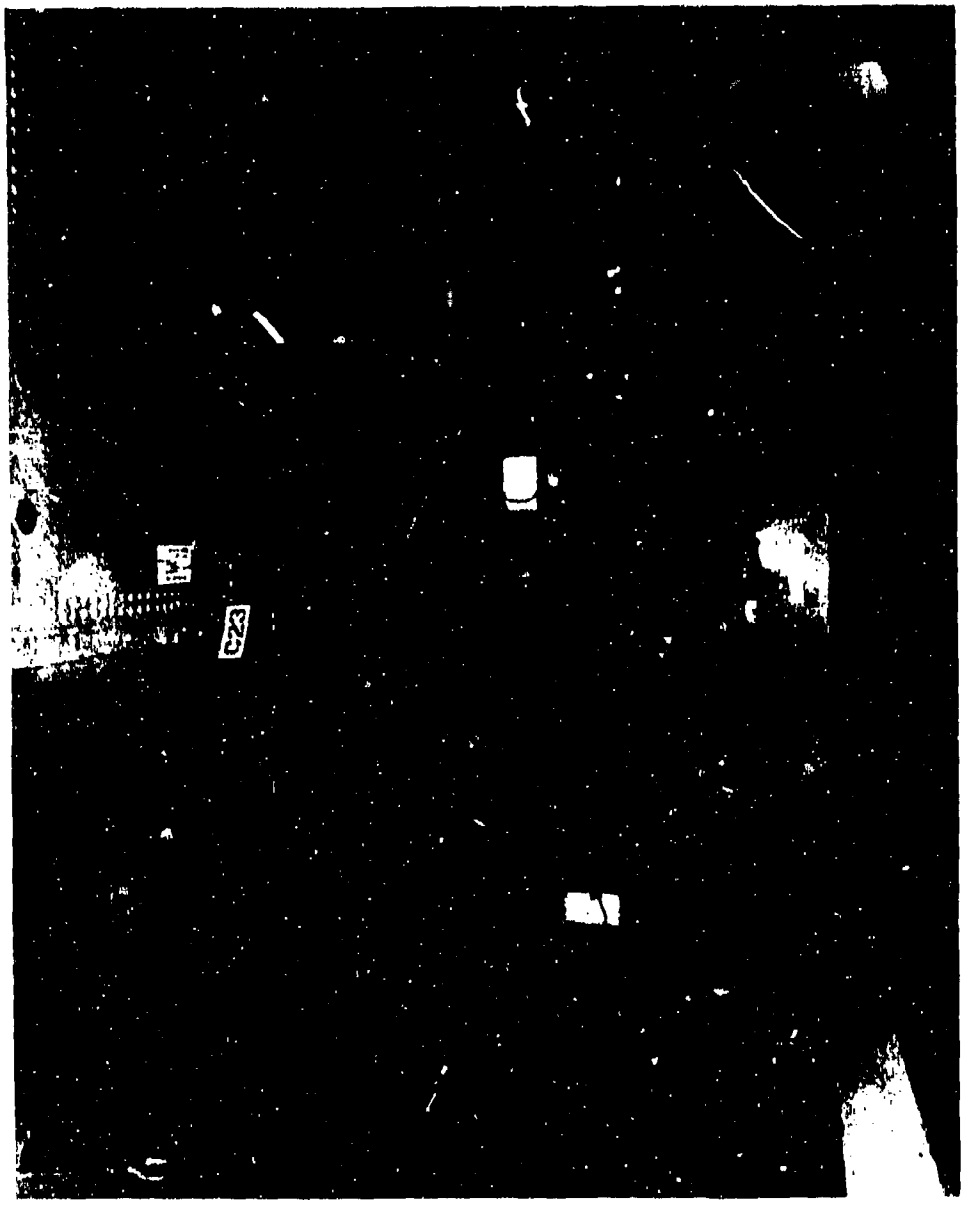


Figure A-45. Transducer Locations in Aft Section of Weapons Bay

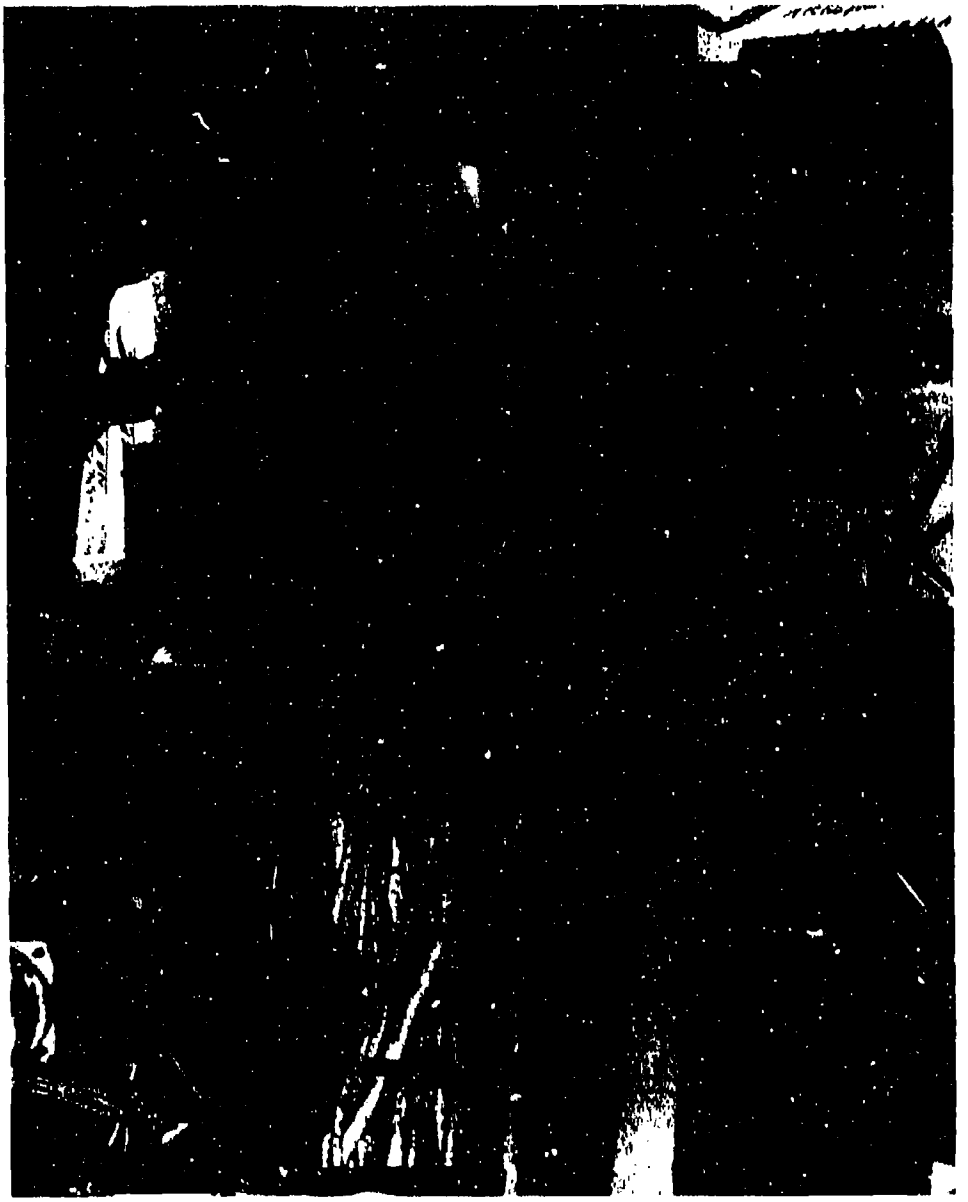


Figure A-46. Transducer Locations on Upper Forward Wall of Weapons Bay

Figure A-47. Transducer Locations on Forward Wall of Weapons Bay

Figure A-48. Transducer Locations in Forward Upper Right Section of Weapons Bay

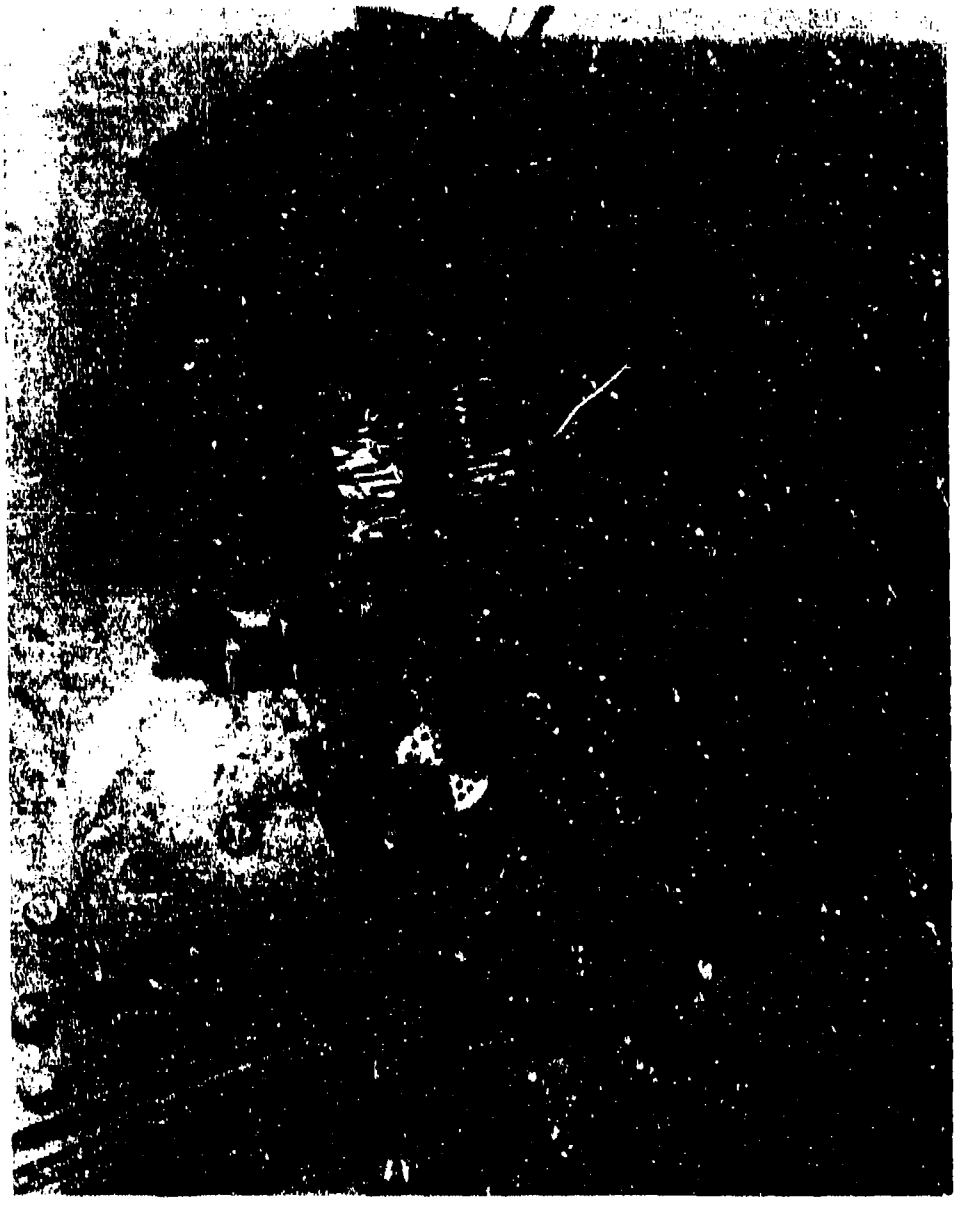


Figure A-49. Transducer Location in Forward Upper Right Section of Weapons Bay (Actual Location of C4M)

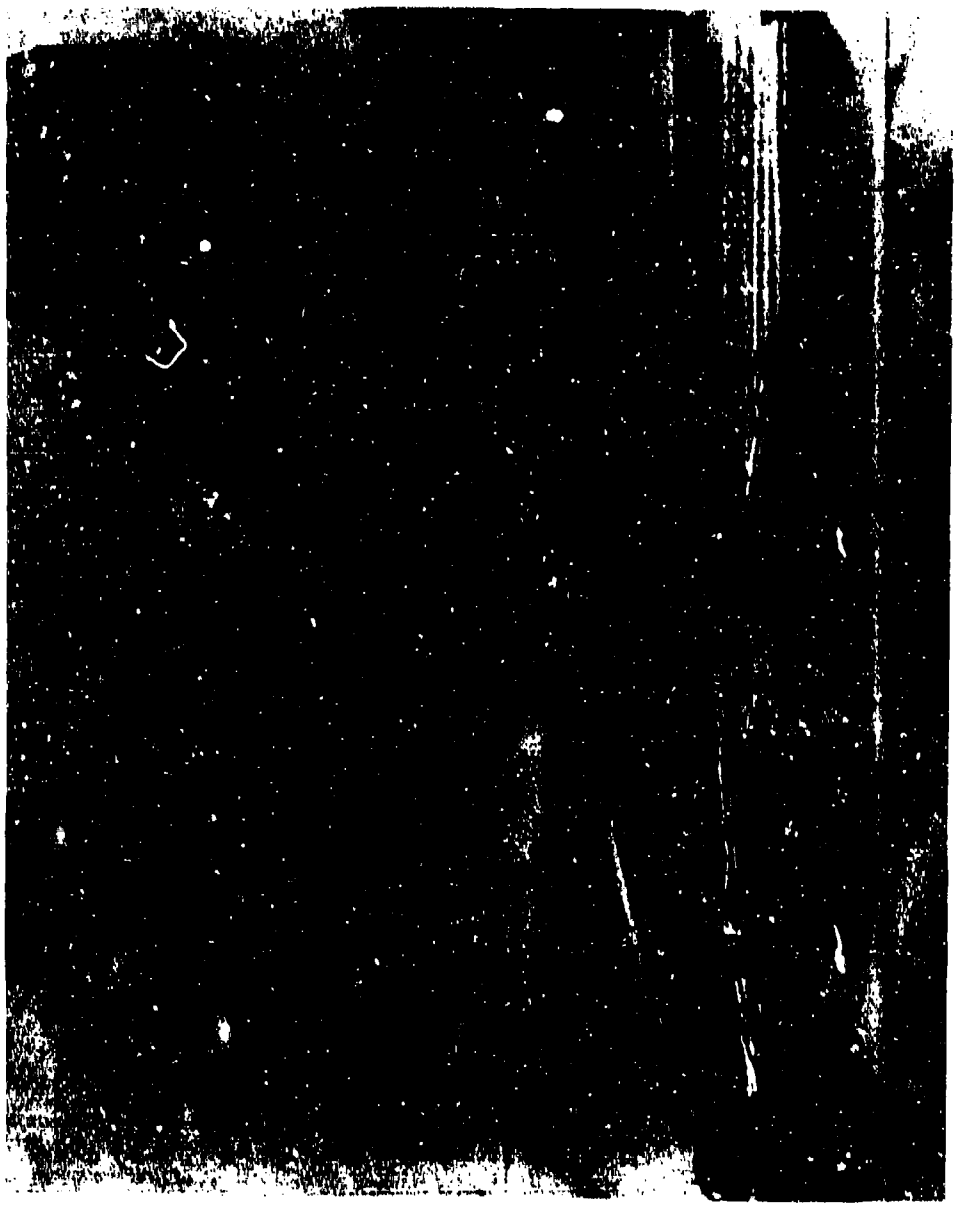


Figure A-50. Transducer Locations in Forward Upper Left Section of Weapons Bay

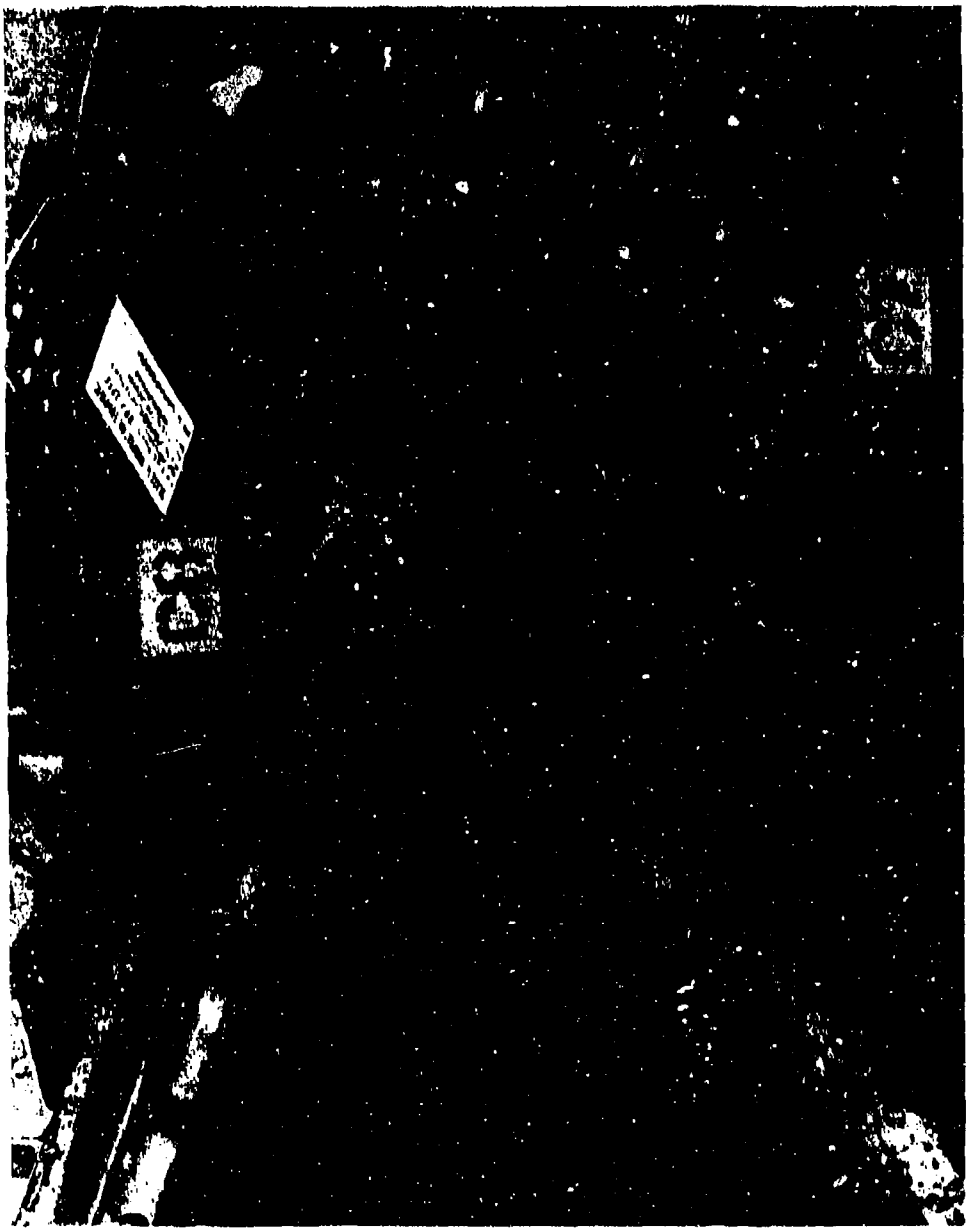


Figure A-51. Transducer Locations in the Center Upper Right Section of Weapons Bay

Figure A-52. Transducer Location in the Center Upper Right Section of Weapons Bay (Actual Location of C&M)

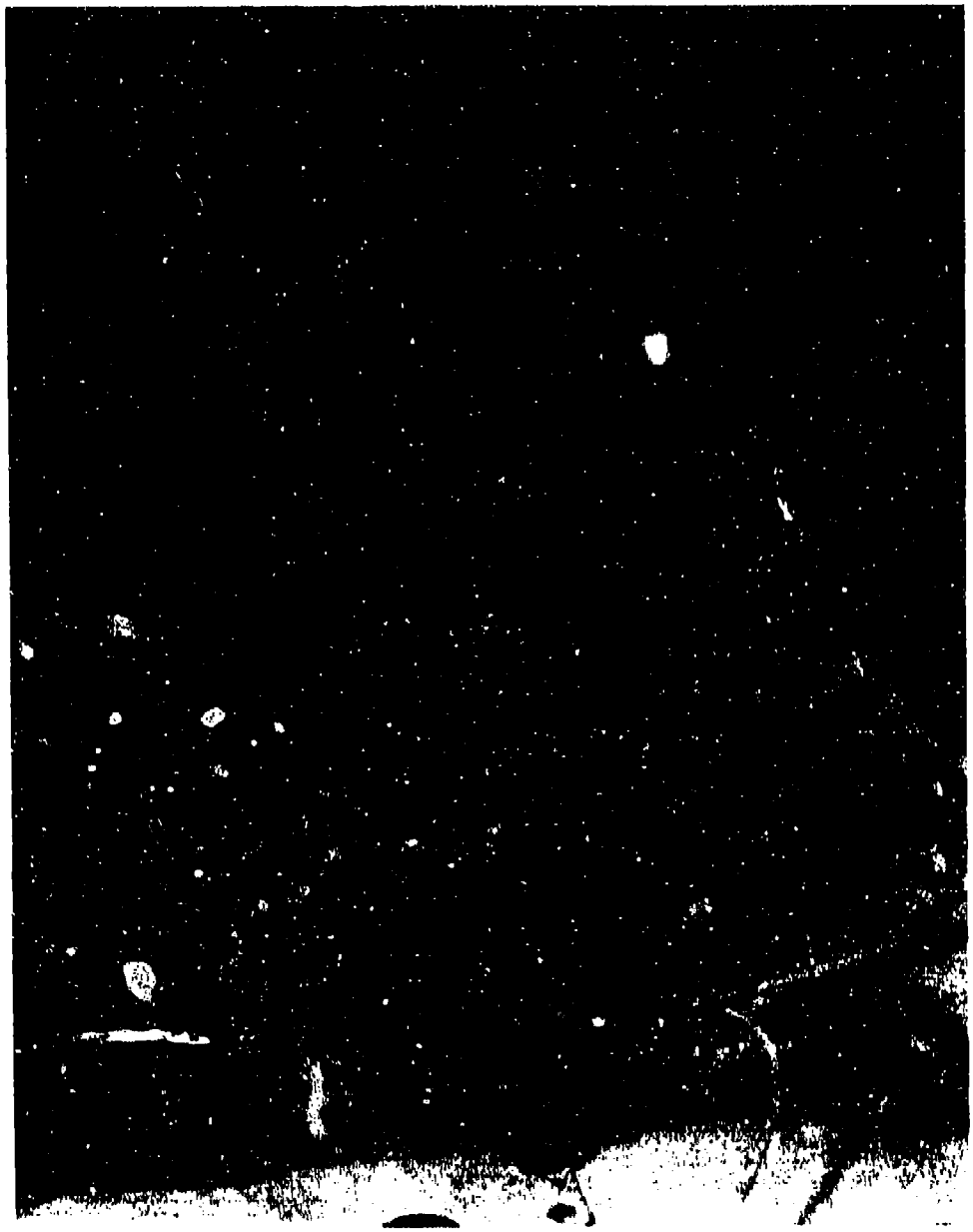


Figure A-53. Transducer Locations in the Center Upper Left Section of Weapons Bay

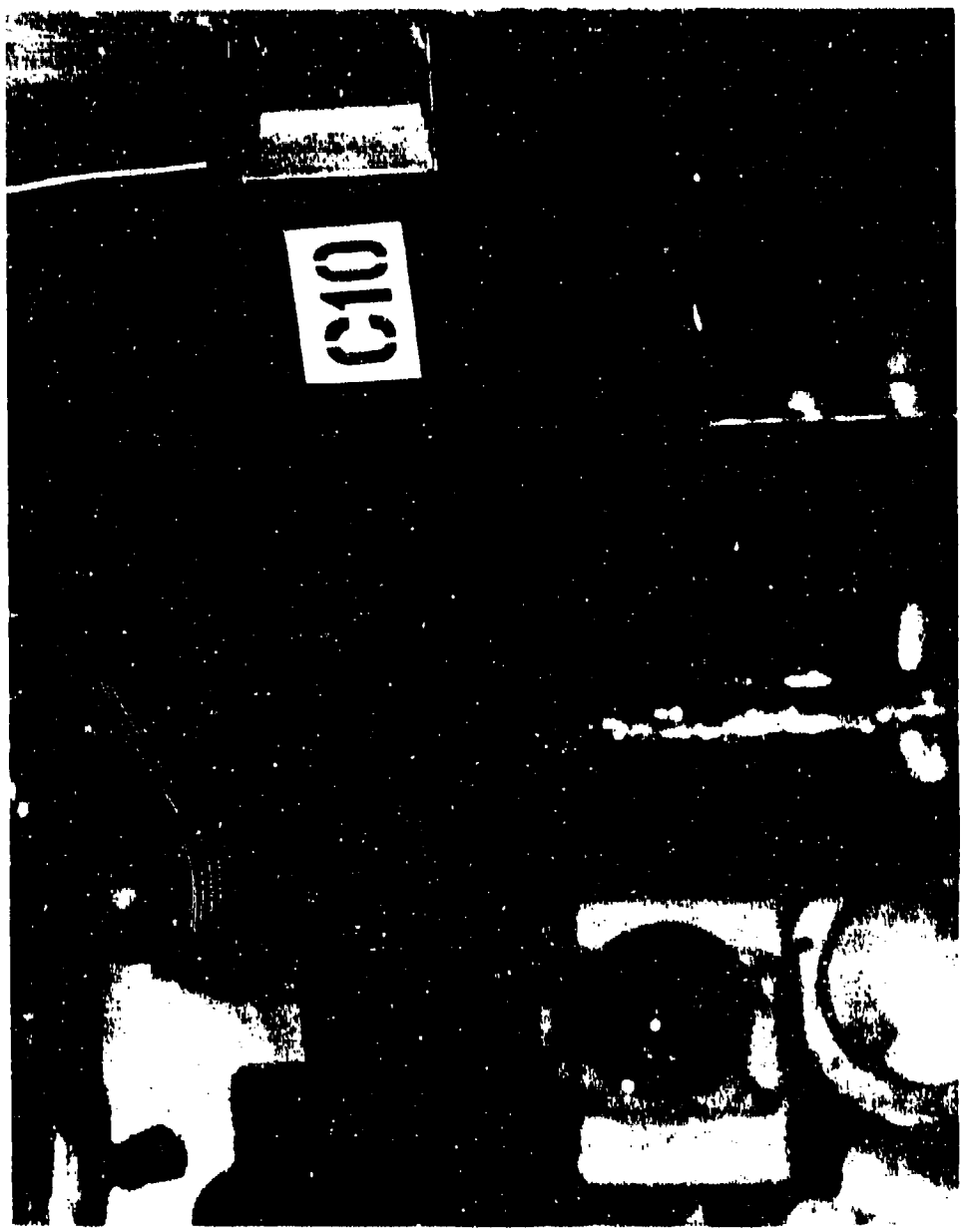


Figure A-54. Transducer Location in the Center of the Left Wall of the Weapons Bay

Figure A-55. Transducer Location at Center Ceiling Beam of Weapons Bay at FS 280

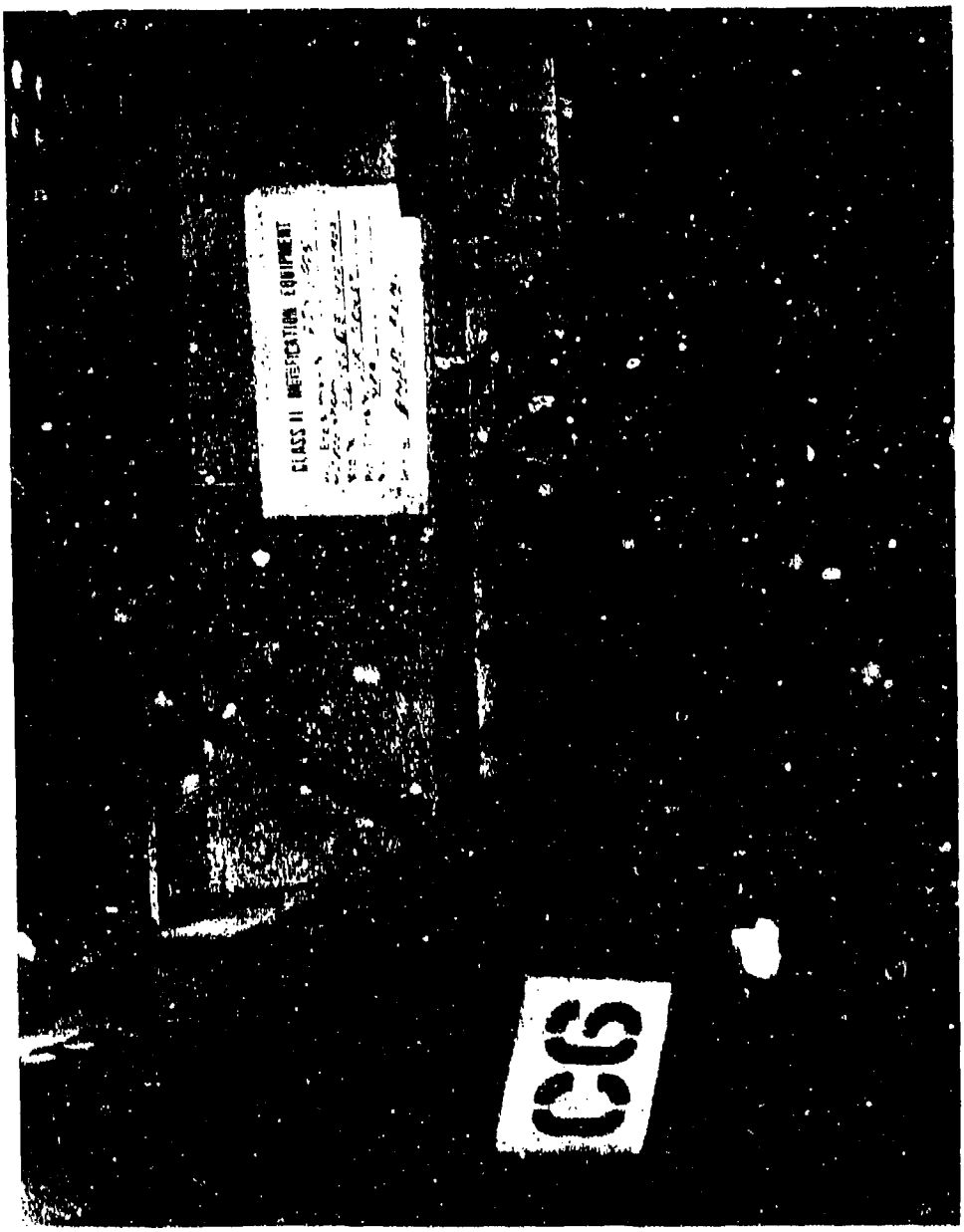


Figure A-56. Transducer Location on Center Ceiling Beam of Weapons Bay at FS 305

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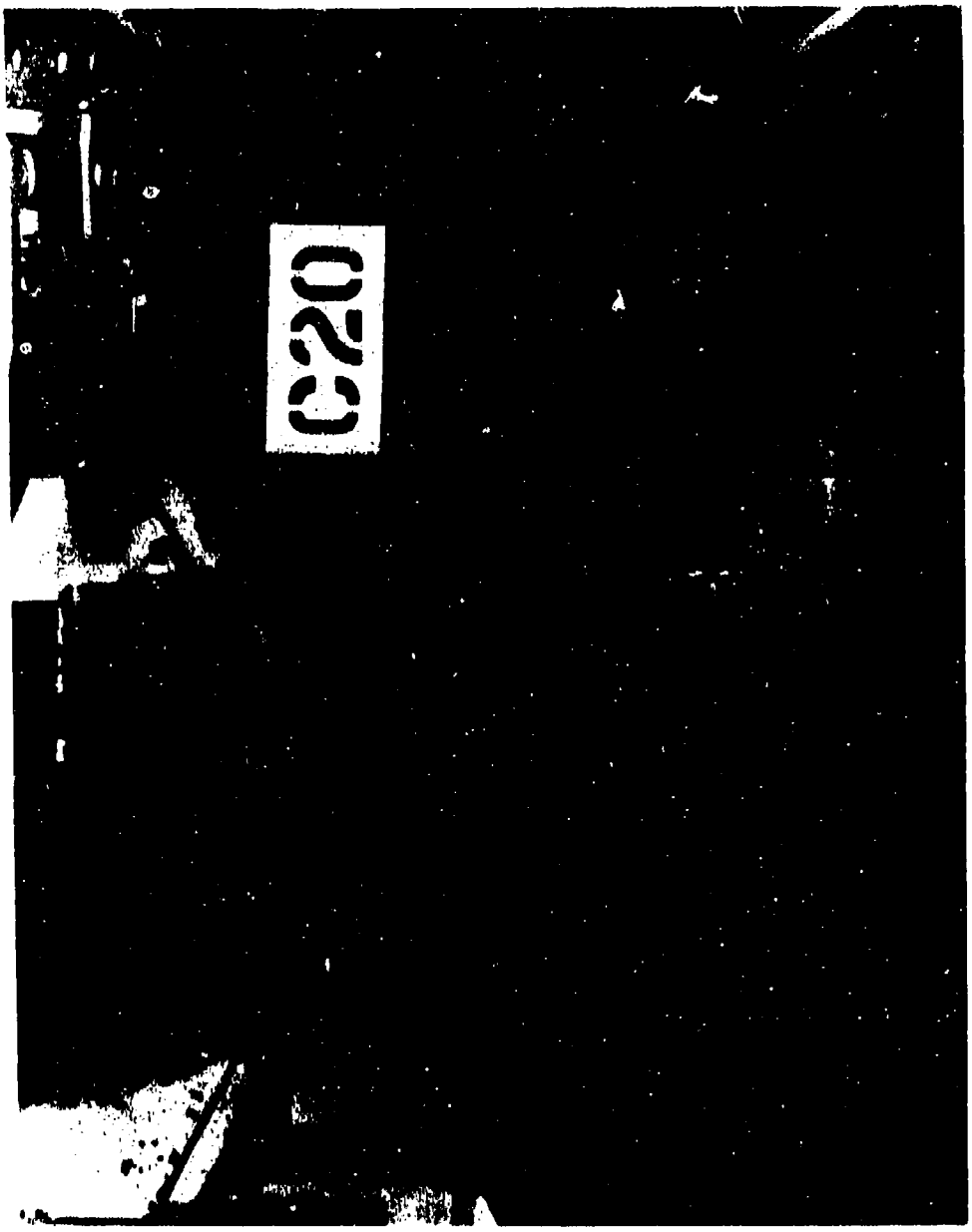


Figure A-57. Transducer Locations on Center Ceiling of Weapons Bay Beam at FS 330 and 355

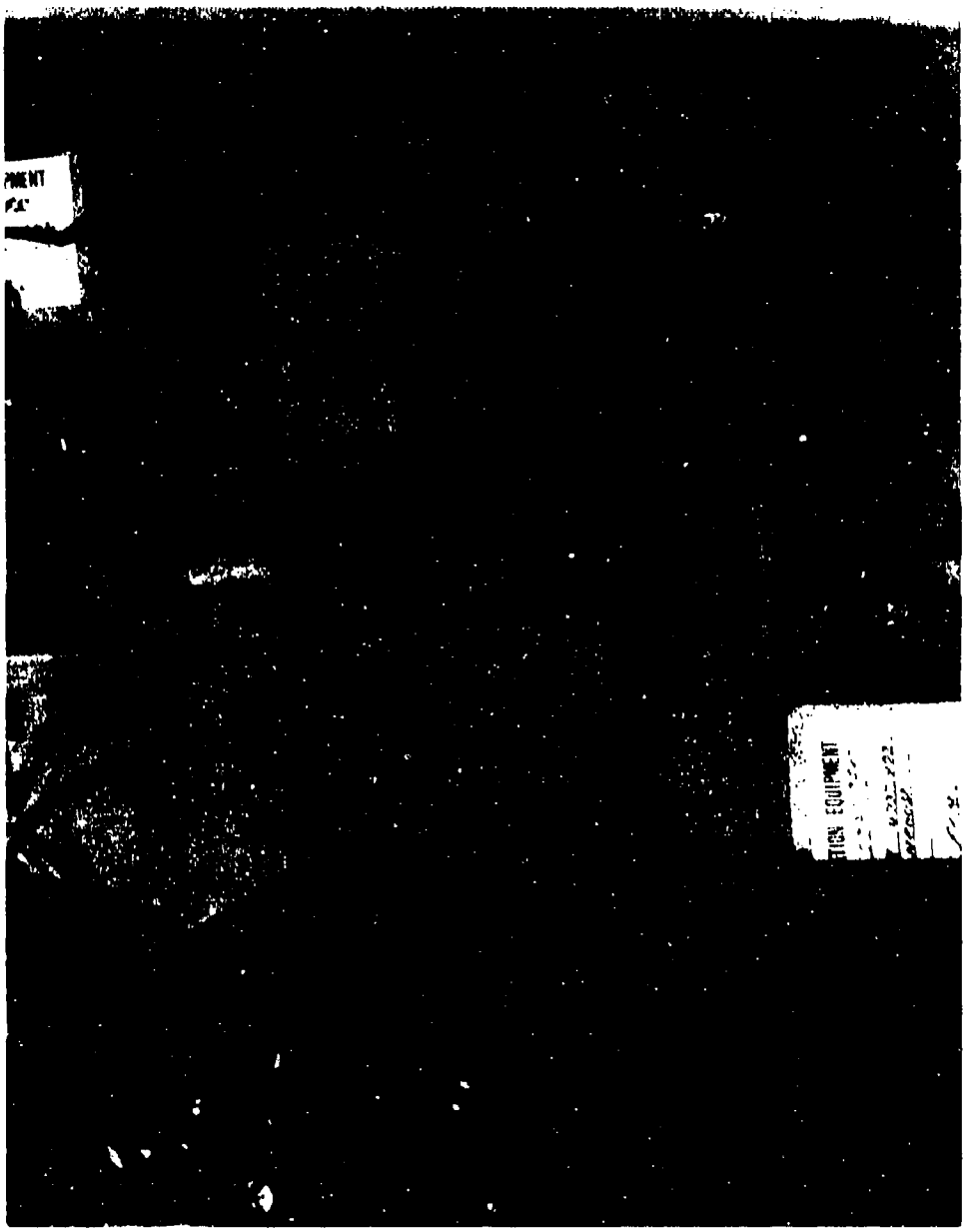


Figure A-58. Transducer Locations on Lower Right Center of Weapons Bay Forward Wall

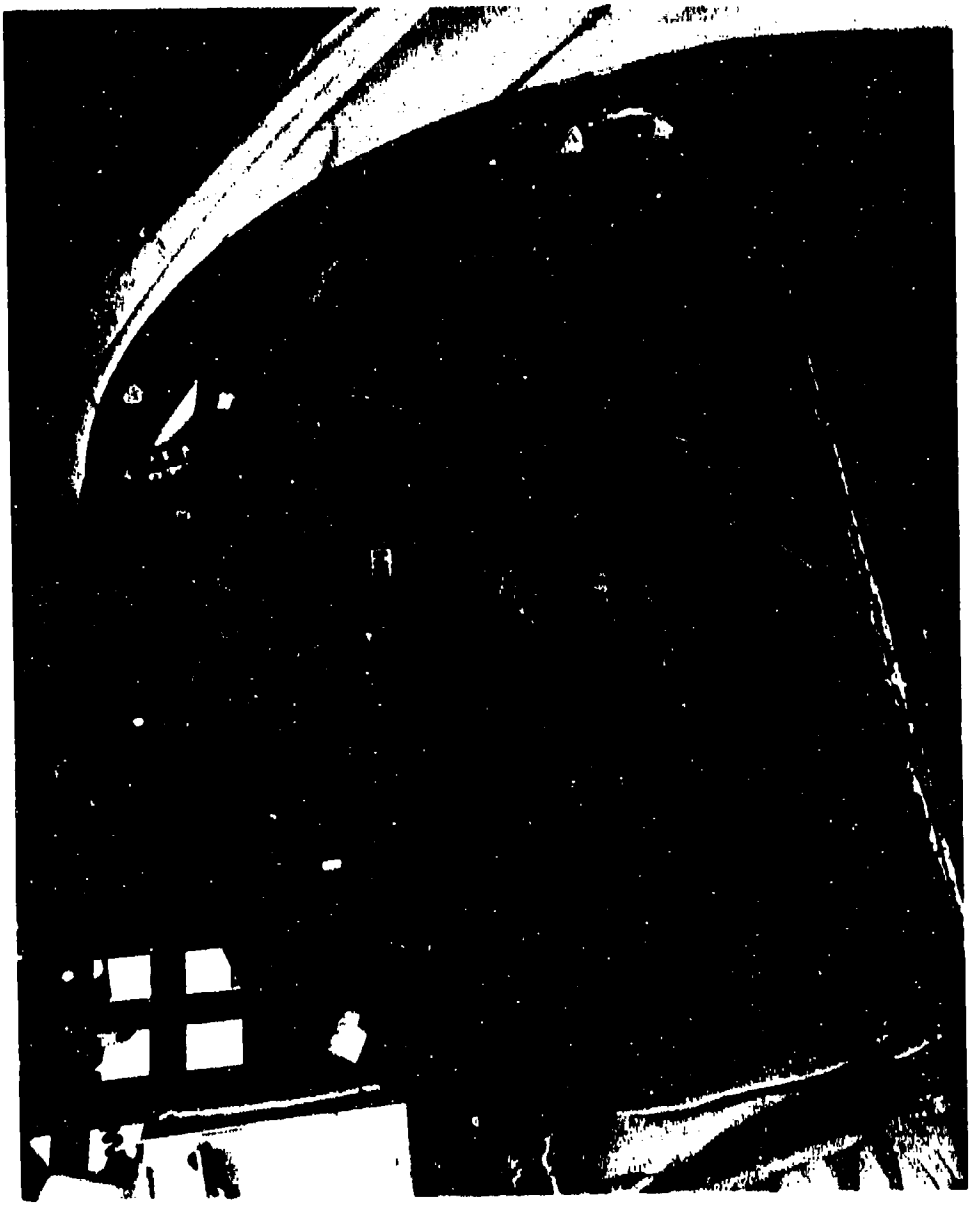


Figure A-59. Transducer Locations on Instrument Panel

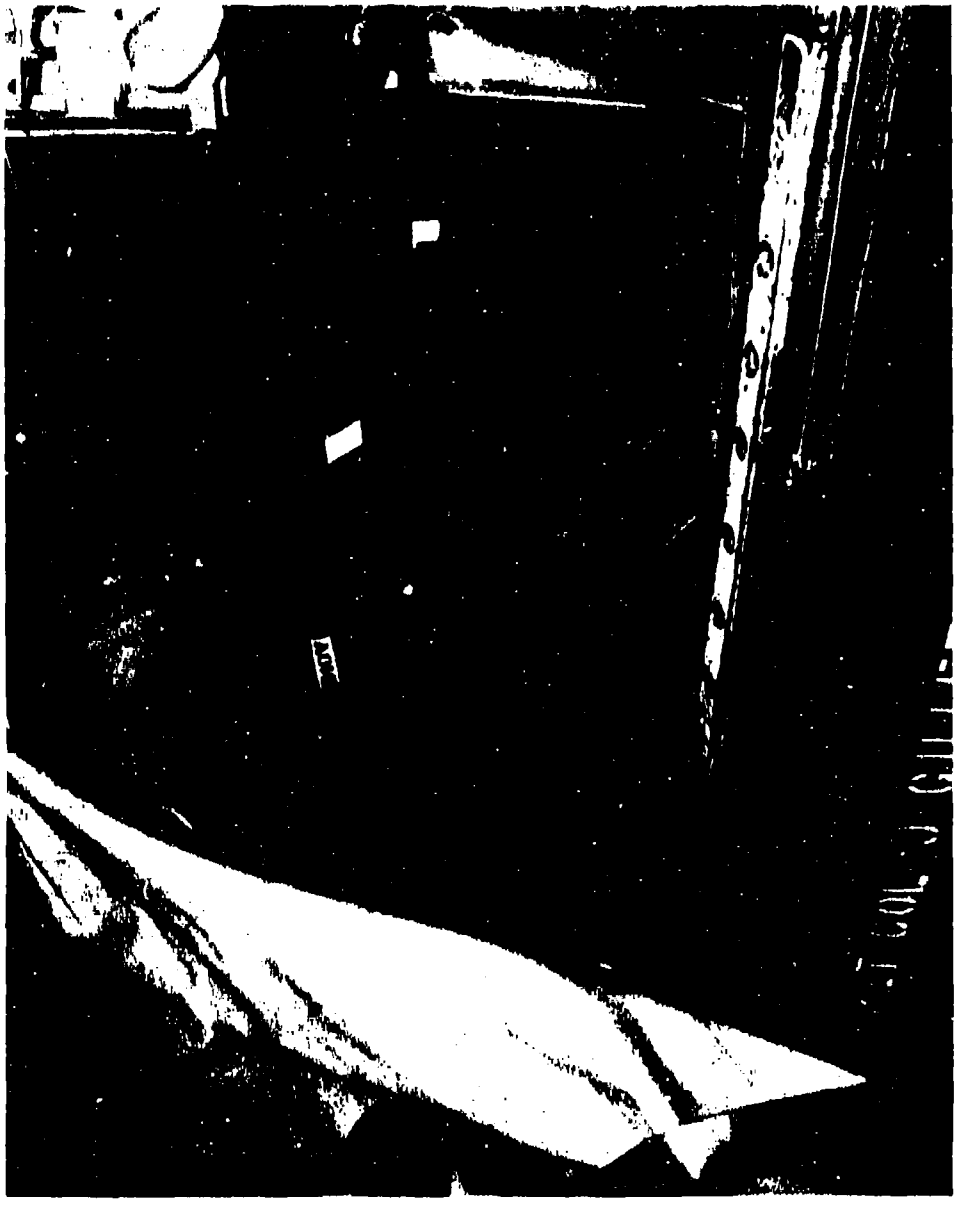


Figure A-60. Transducer Locations on Instrument Panel

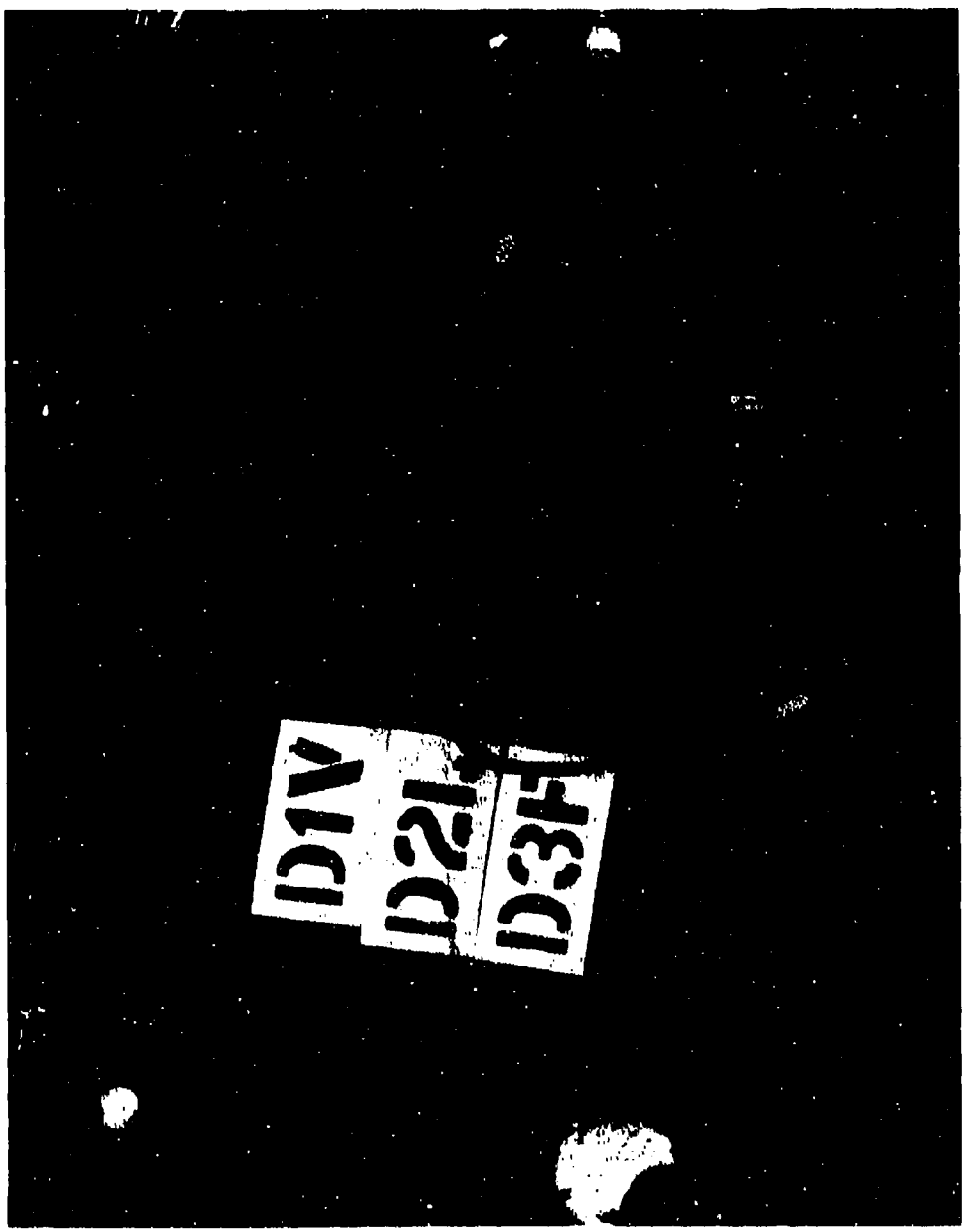


Figure A-61. Transducer Locations on Left Sidewall near Bottom of Instrument Panel

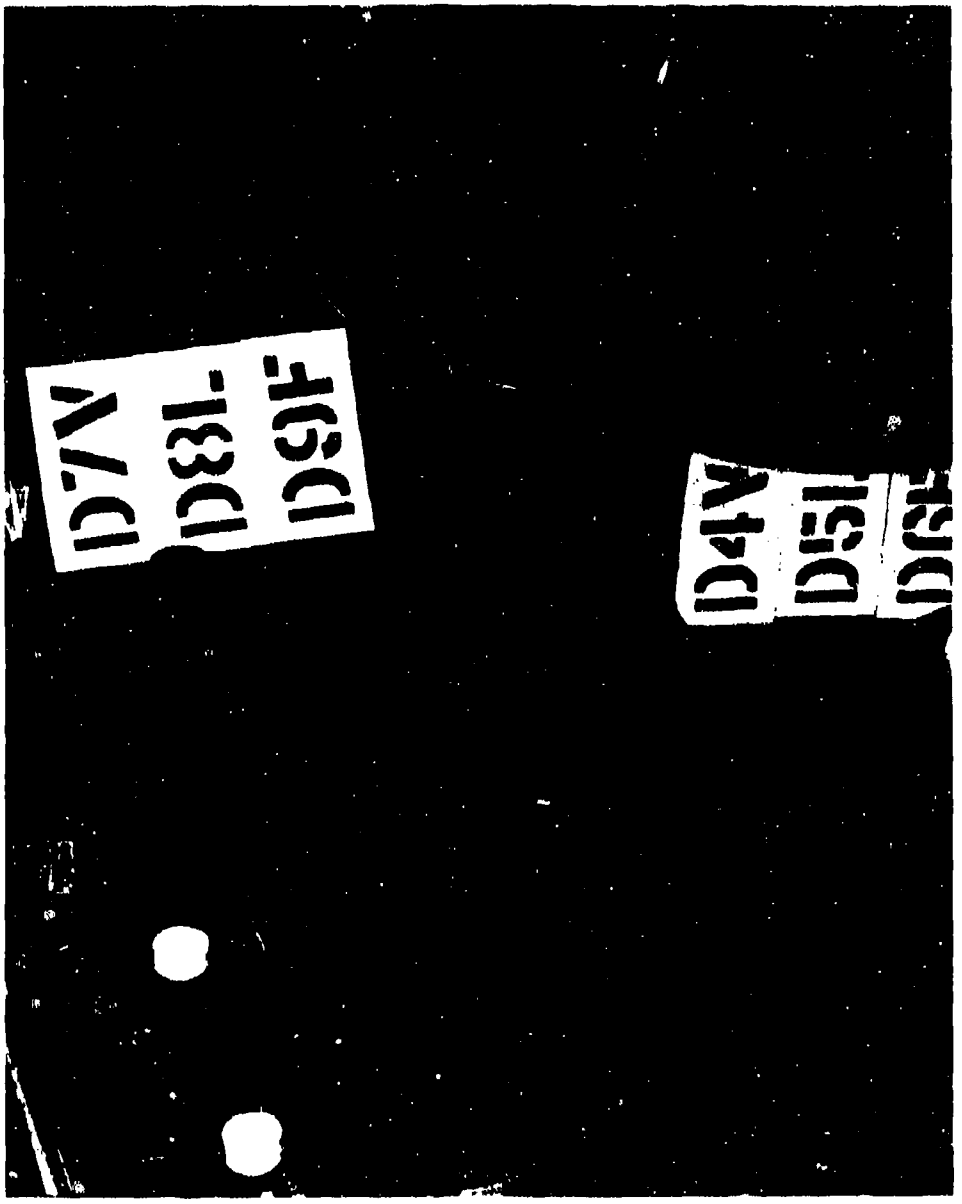


Figure A-62. Transducer Locations on Bottom Right Side on Instrument Panel and Sidewall

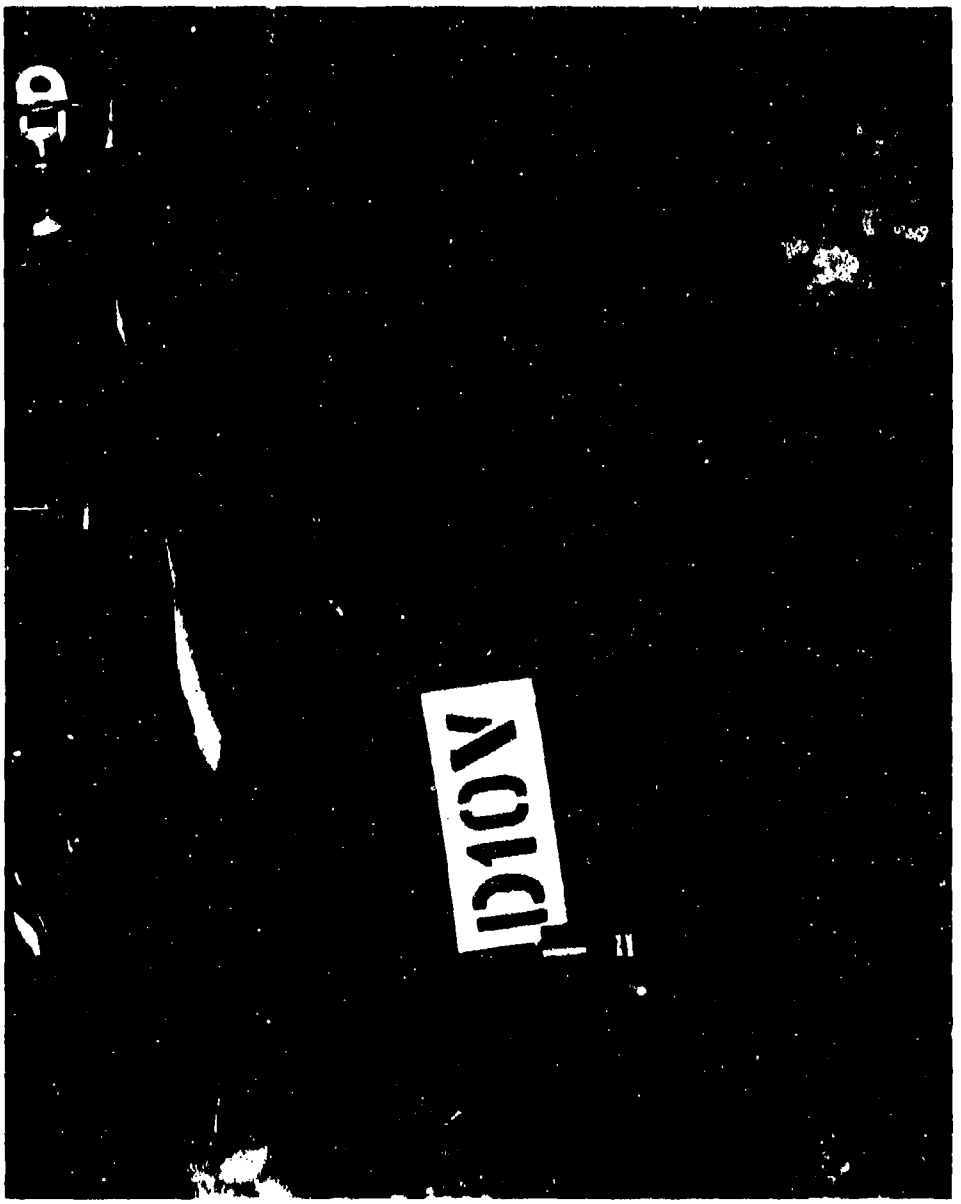


Figure A-63. Transducer Location Near Top of Instrument Panel Near Center

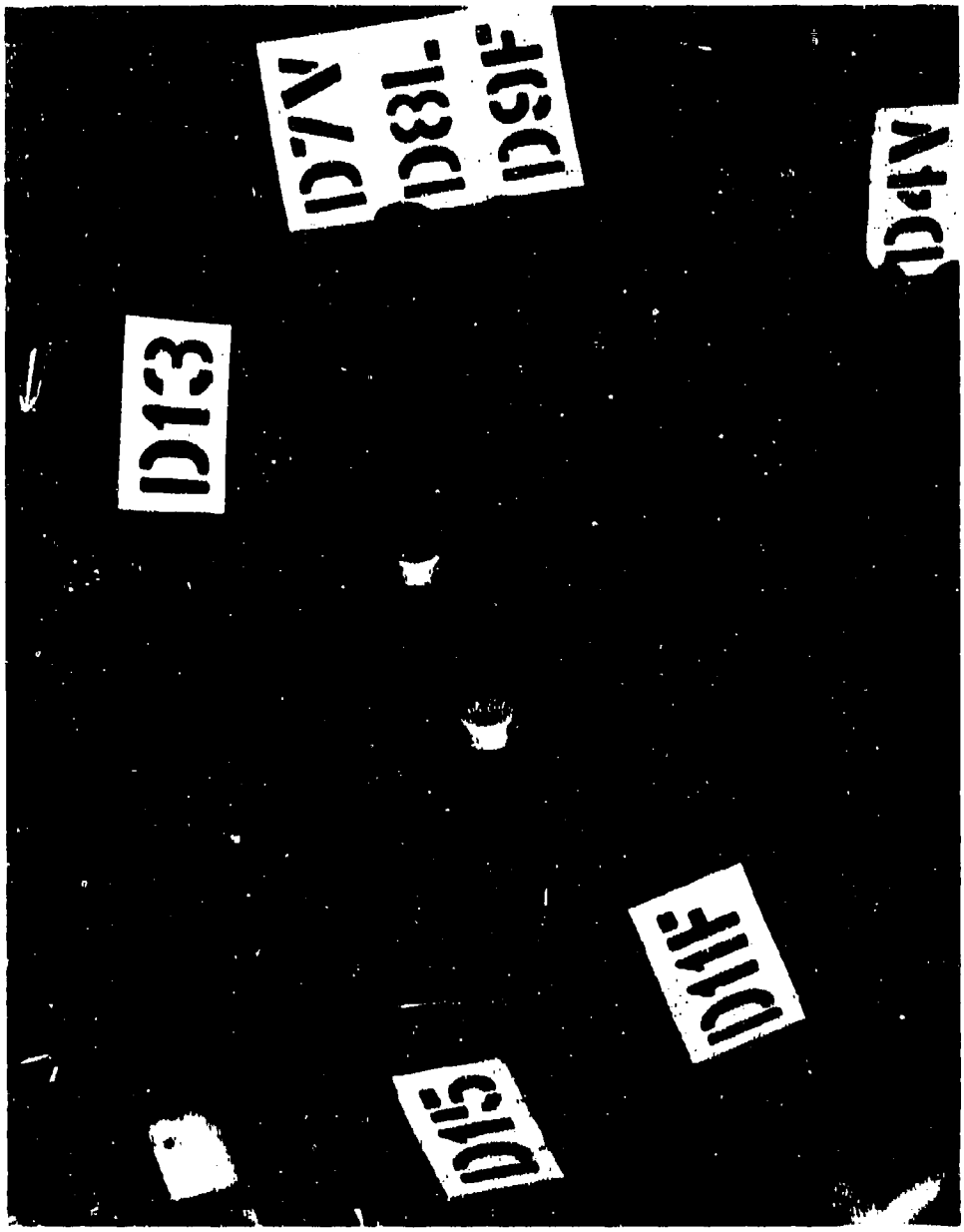


Figure A-64. Transducer Location on Right Side of Instrument Panel

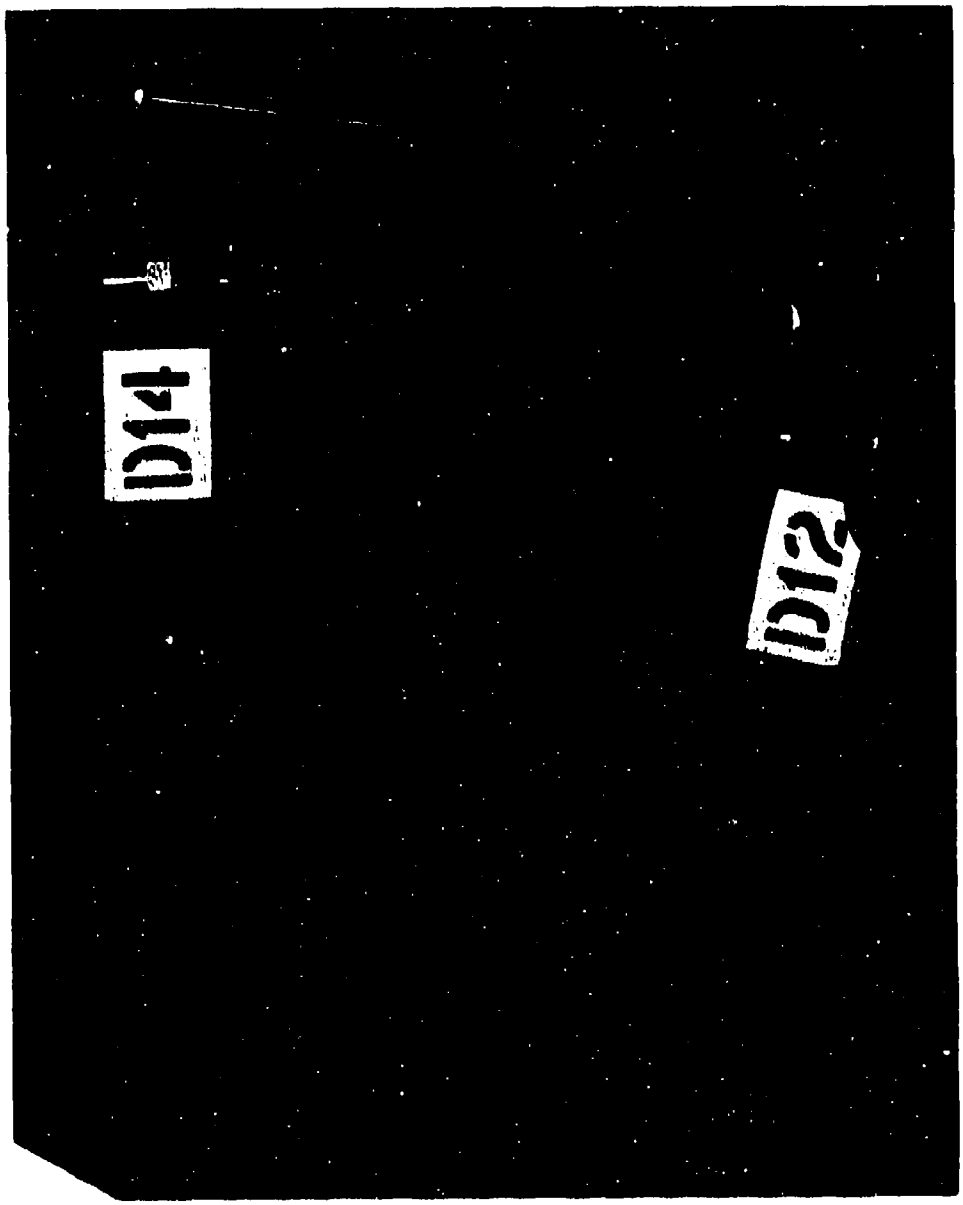


Figure A-65. Transducer Locations on Left Side of Instrument Panel

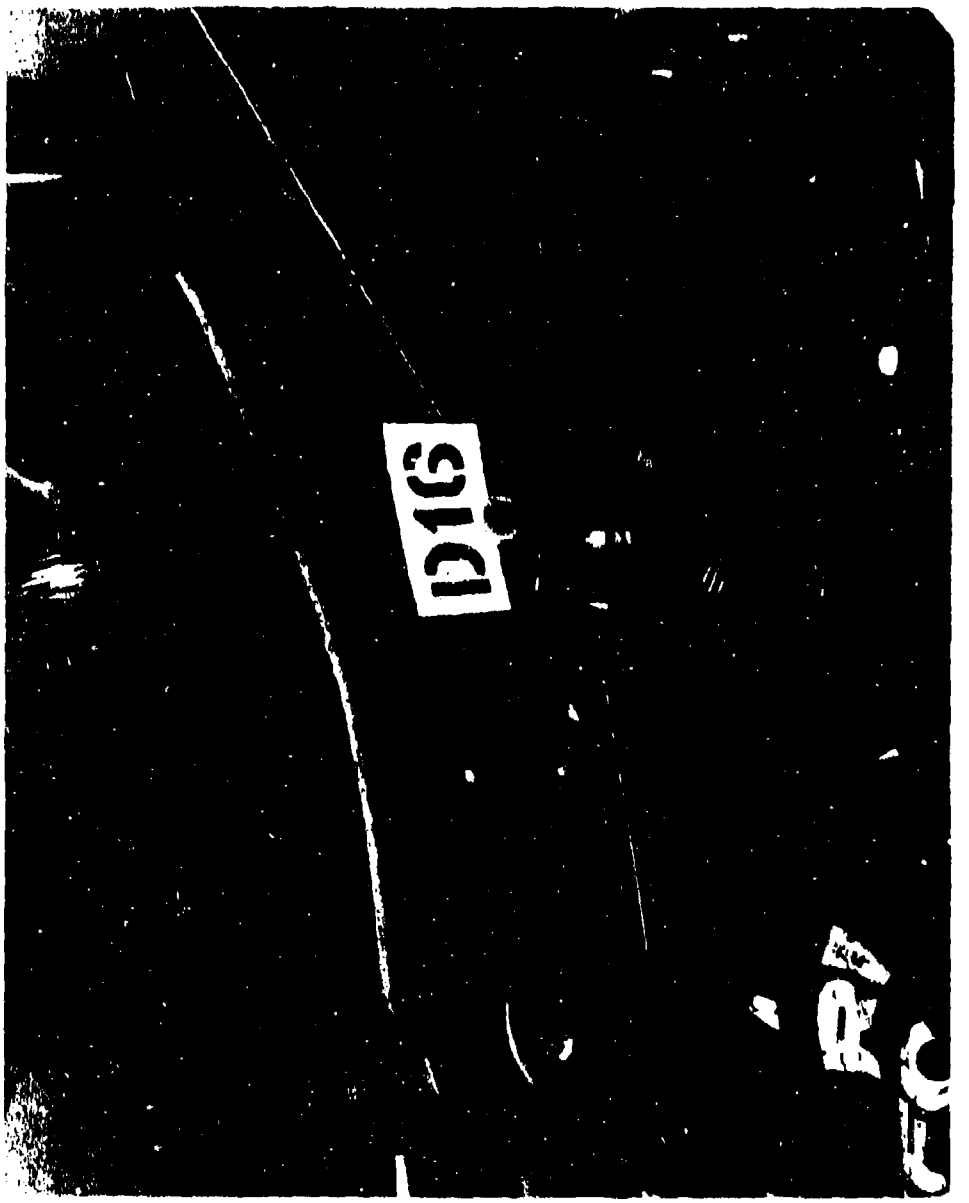


Figure A-66. Transducer Location on Center Console

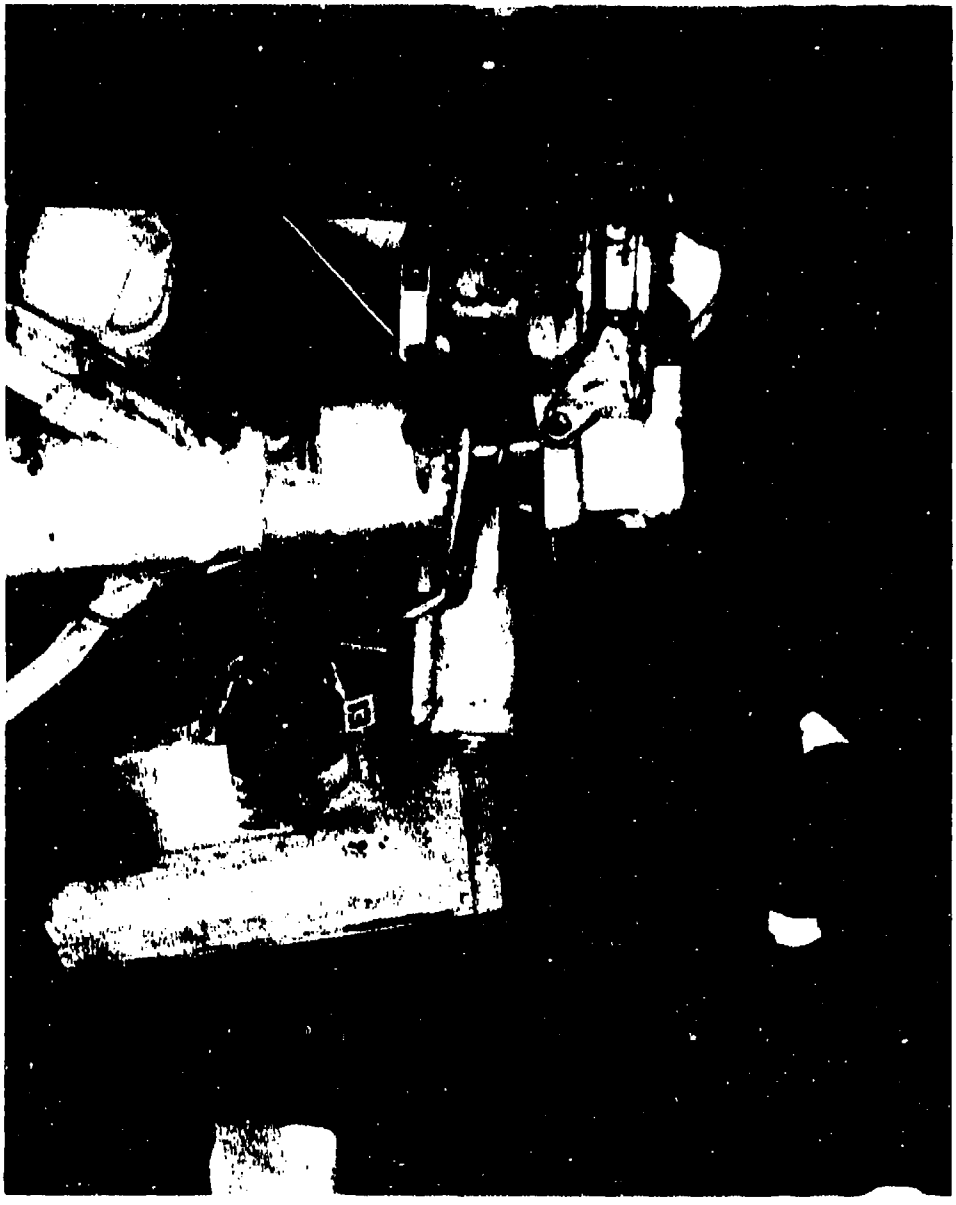


Figure A-67. Transducer Location on Forward Landing Gear Door

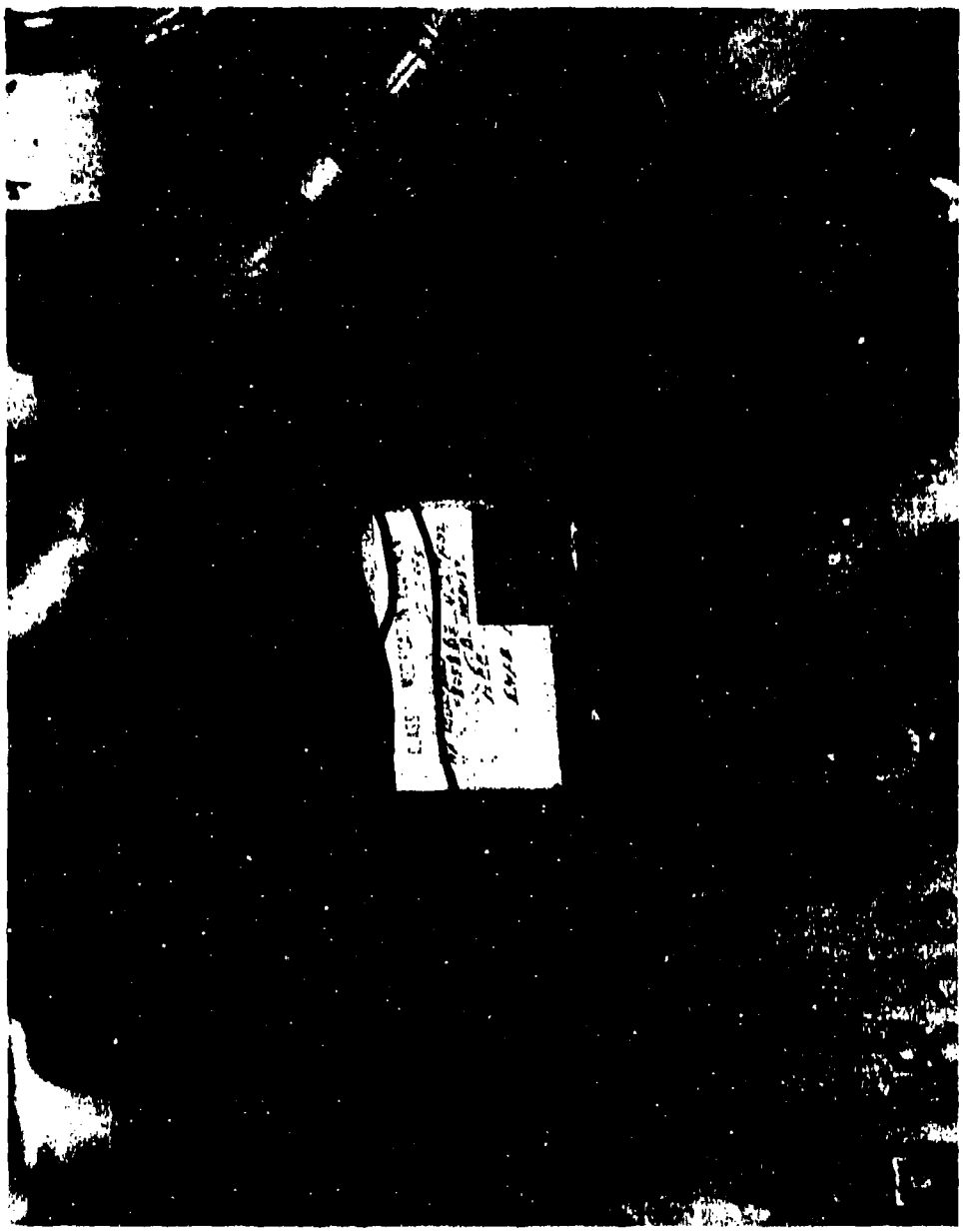


Figure A-68. Transducer Location on Left Main Landing Gear Near Pivot

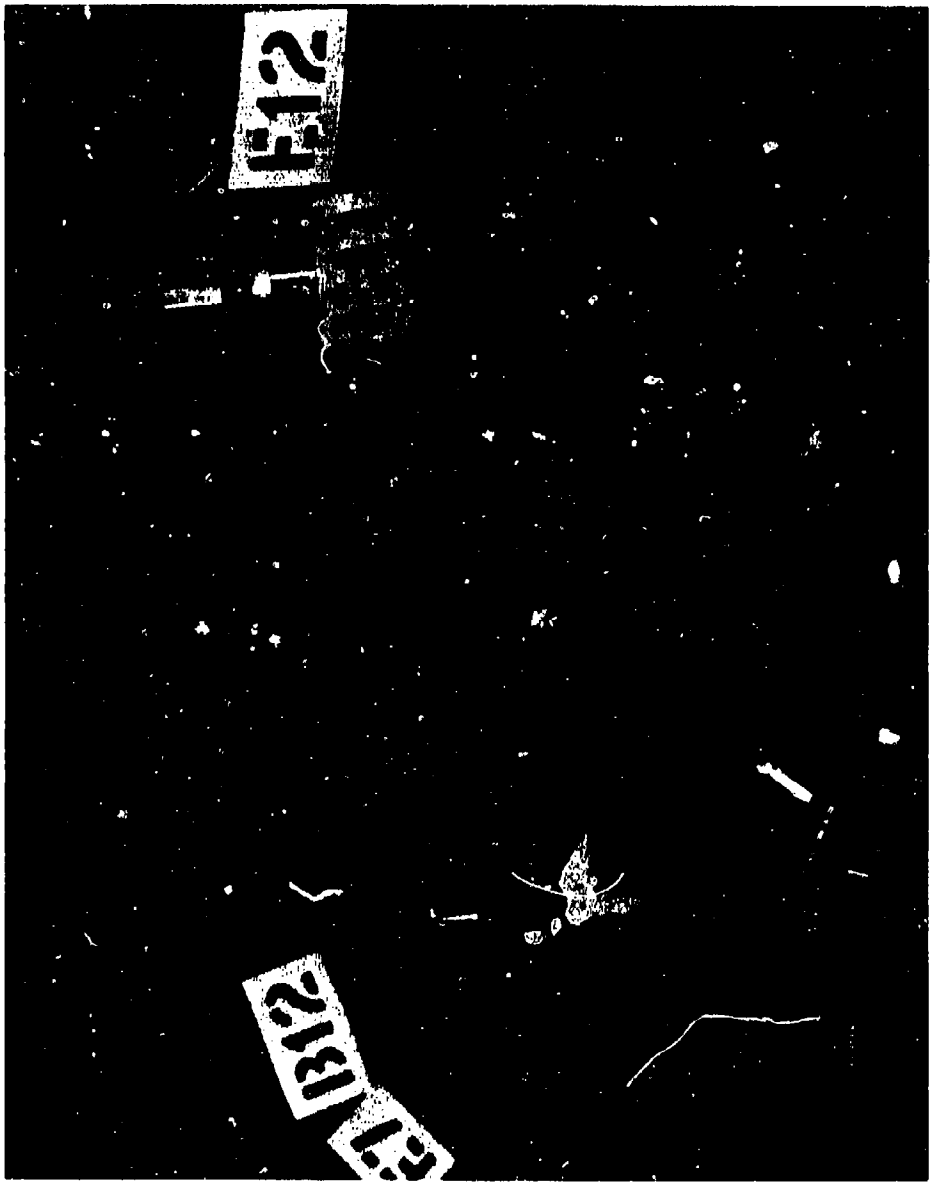


Figure A-69. Transducer Locations on Top of Vertical Stabilator

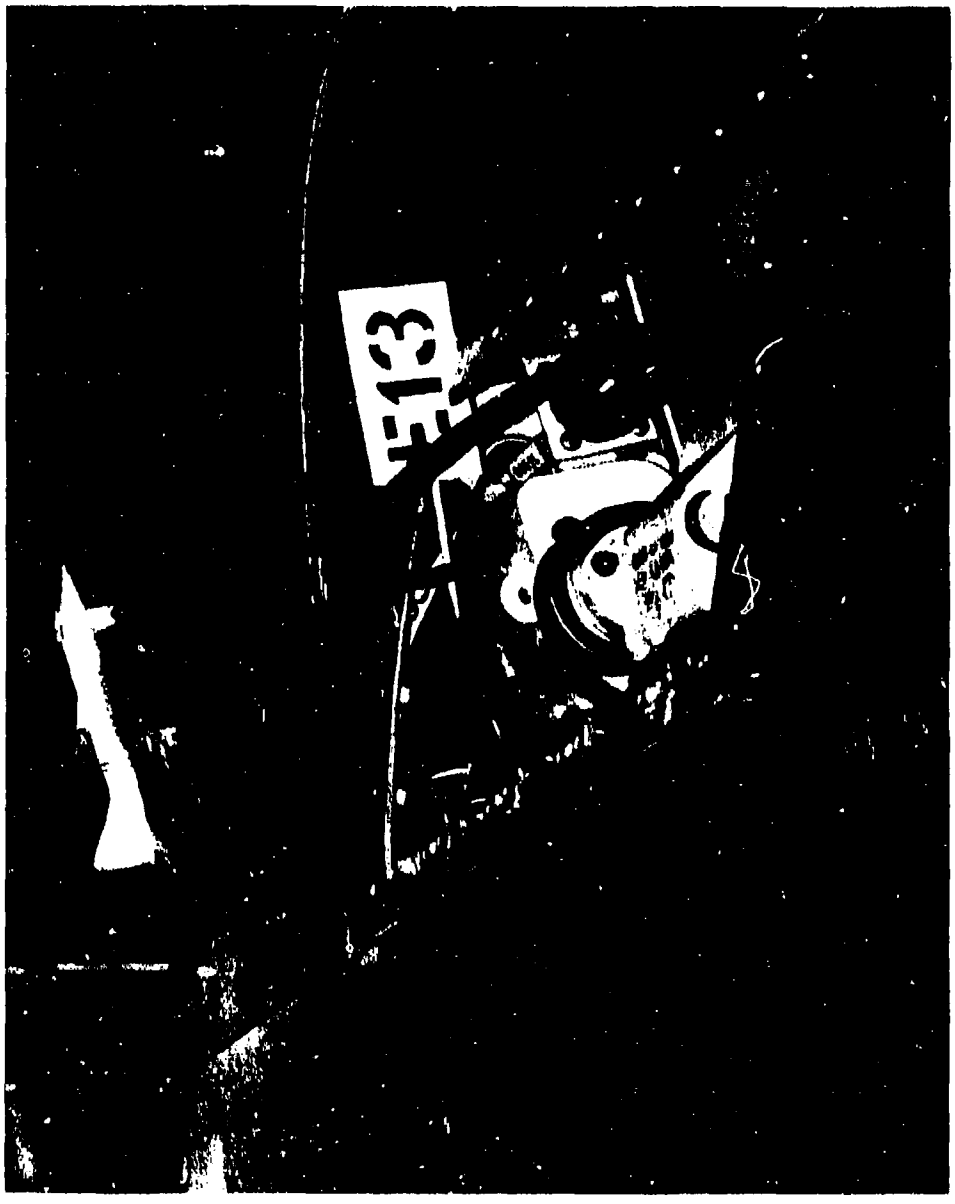


Figure A-70. Transducer Location near Tip of Left Wing

Figure A-71. Transducer Locations on Left Engine

Figure A-72. Transducer Locations on Left Engine Forward Mount

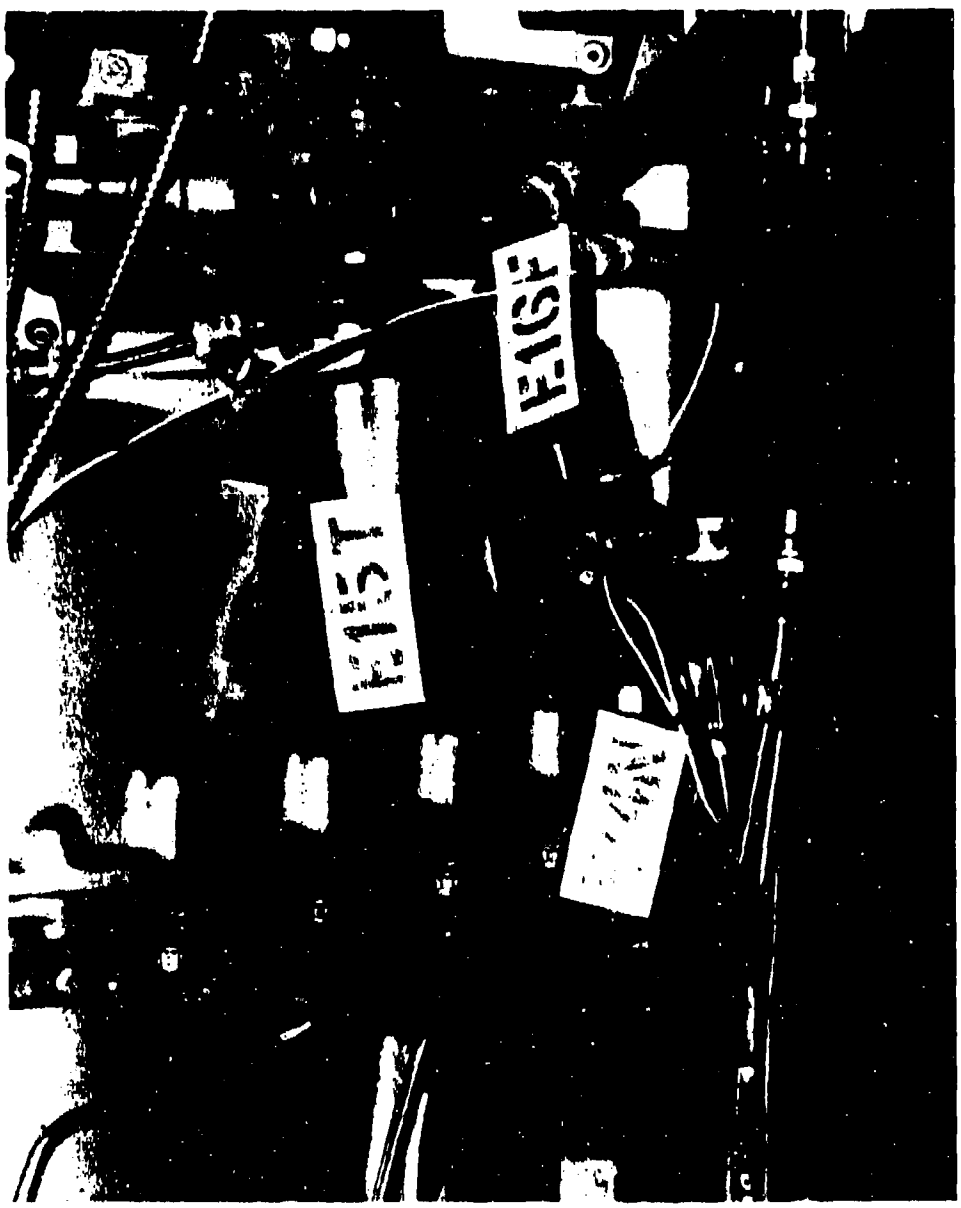


Figure A-73. Transducer Locations on Accessory Gear Box

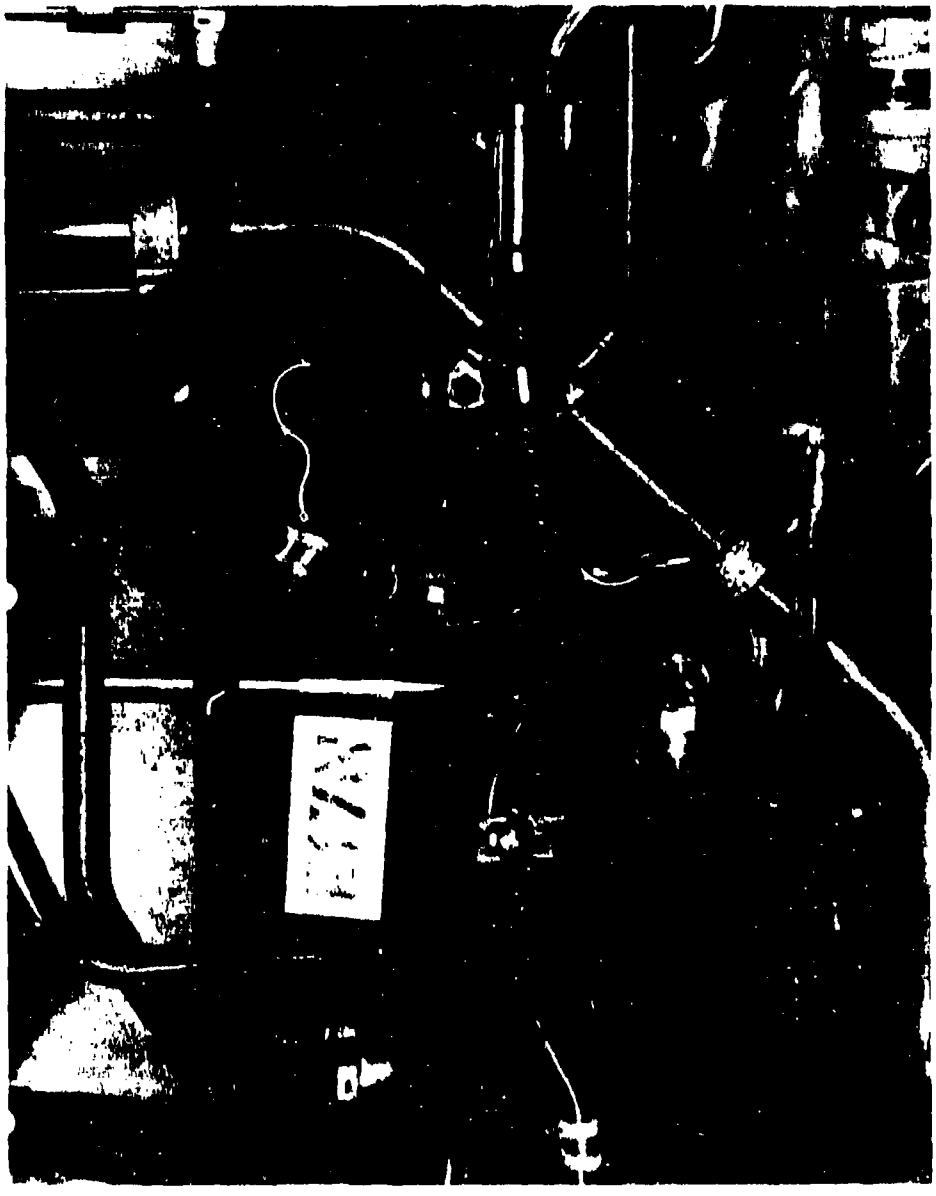


Figure A-74. Transducer Location on Firing Plug Terminal

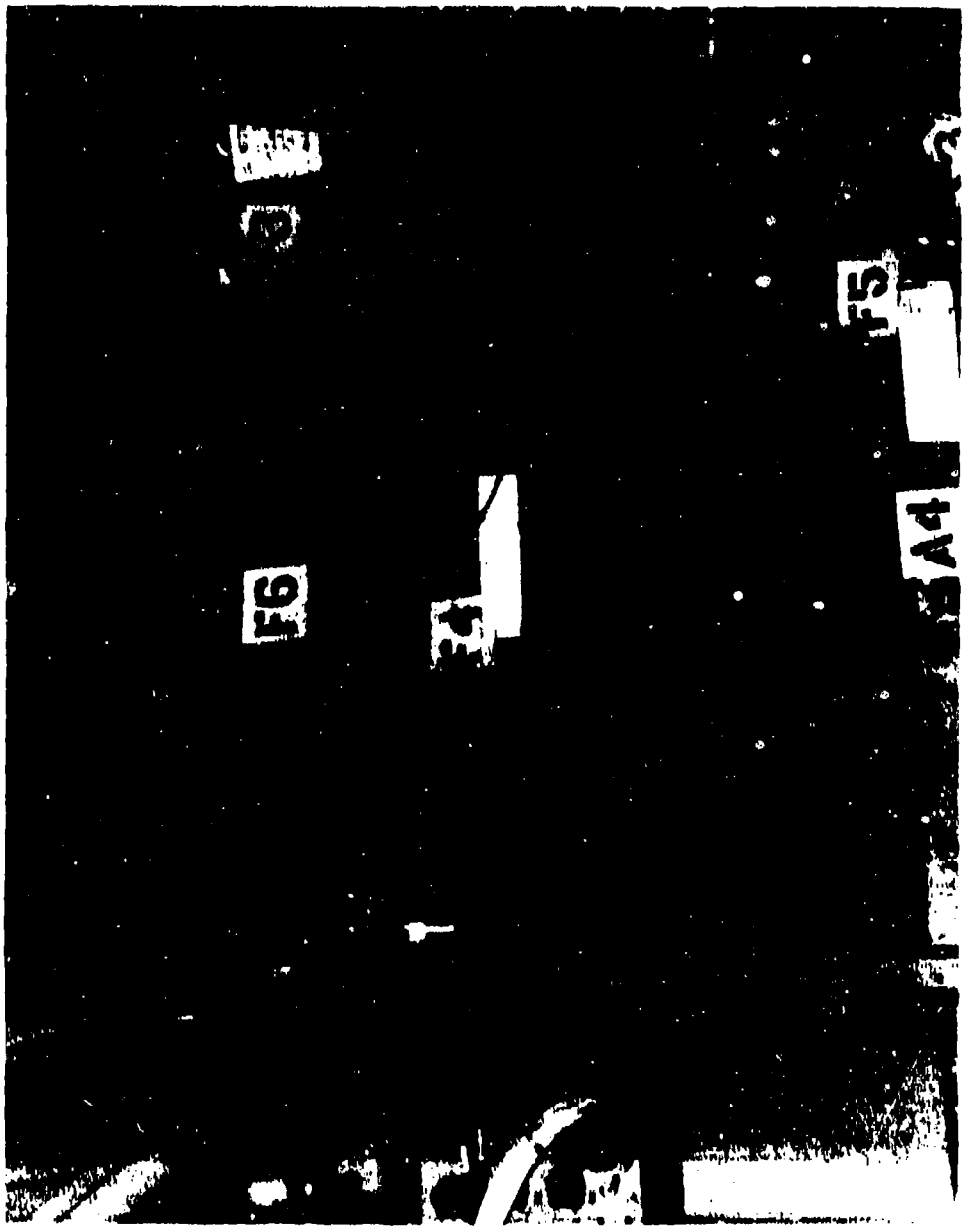


Figure A-75. Transducer Locations Near TFR Equipment Compartment

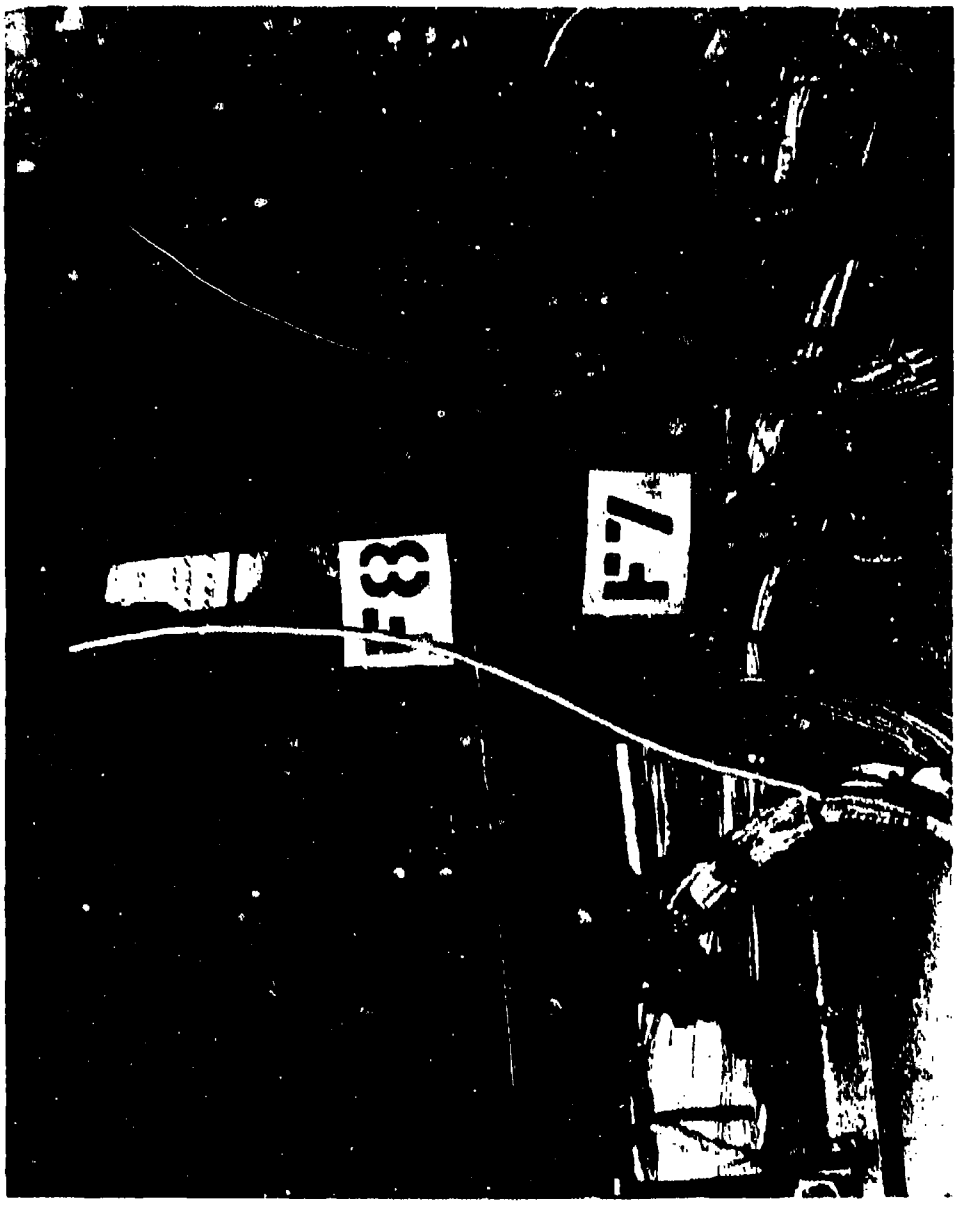


Figure A-76. Transducer Locations near TFR ECS Duct

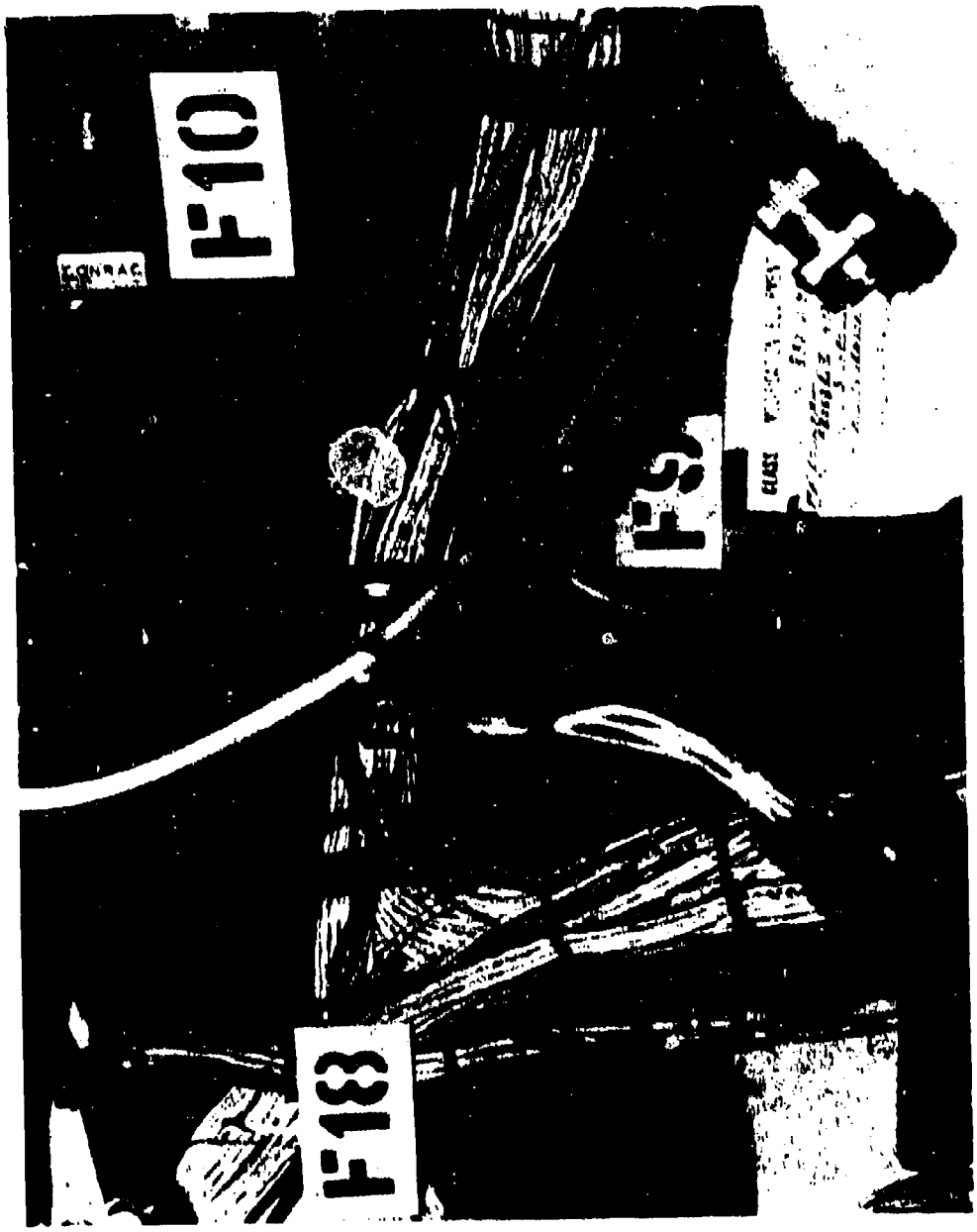


Figure A-77. Transducer Locations in Right Forward Bay

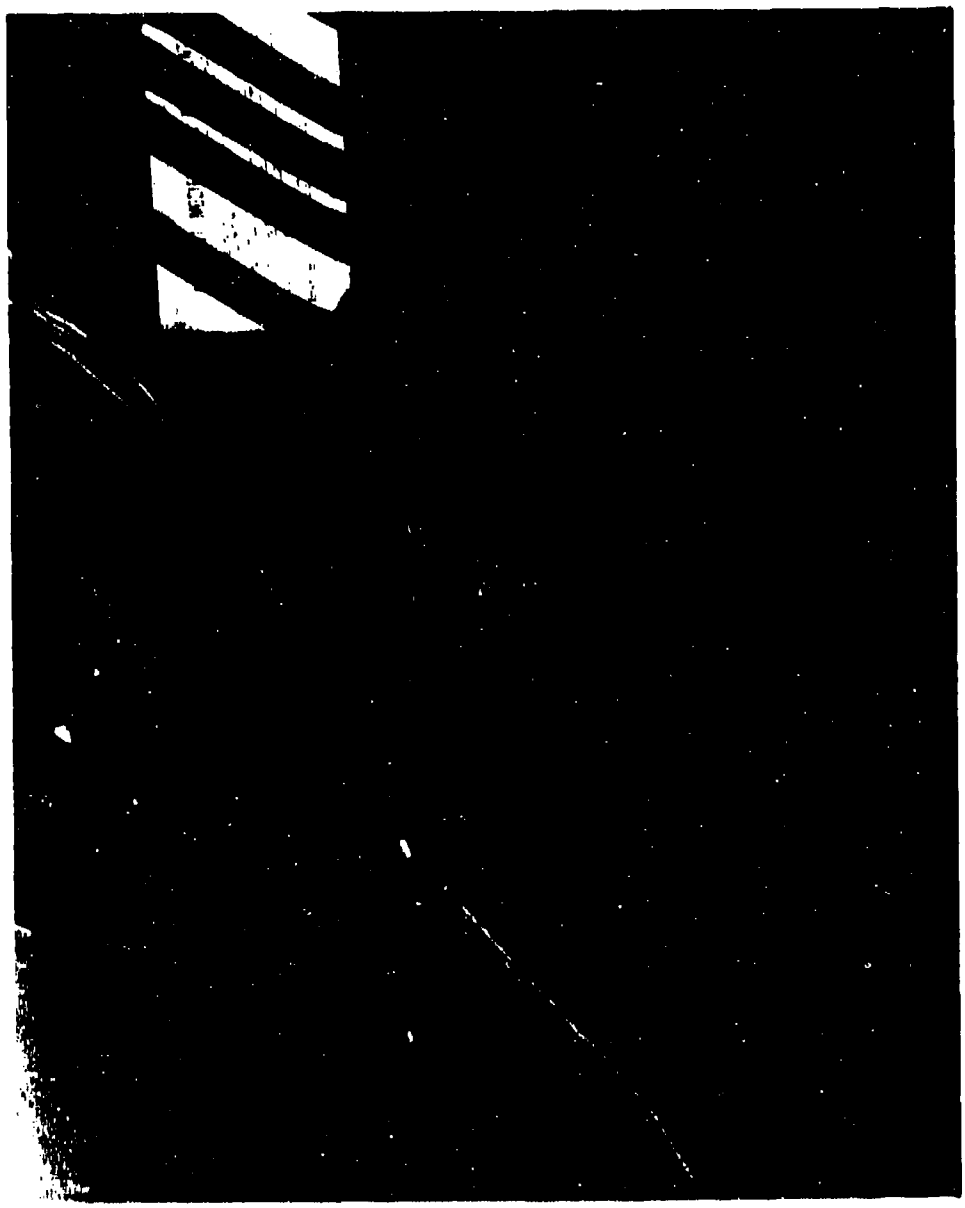


Figure A-78. Transducer Location on Right Forward Bay Door

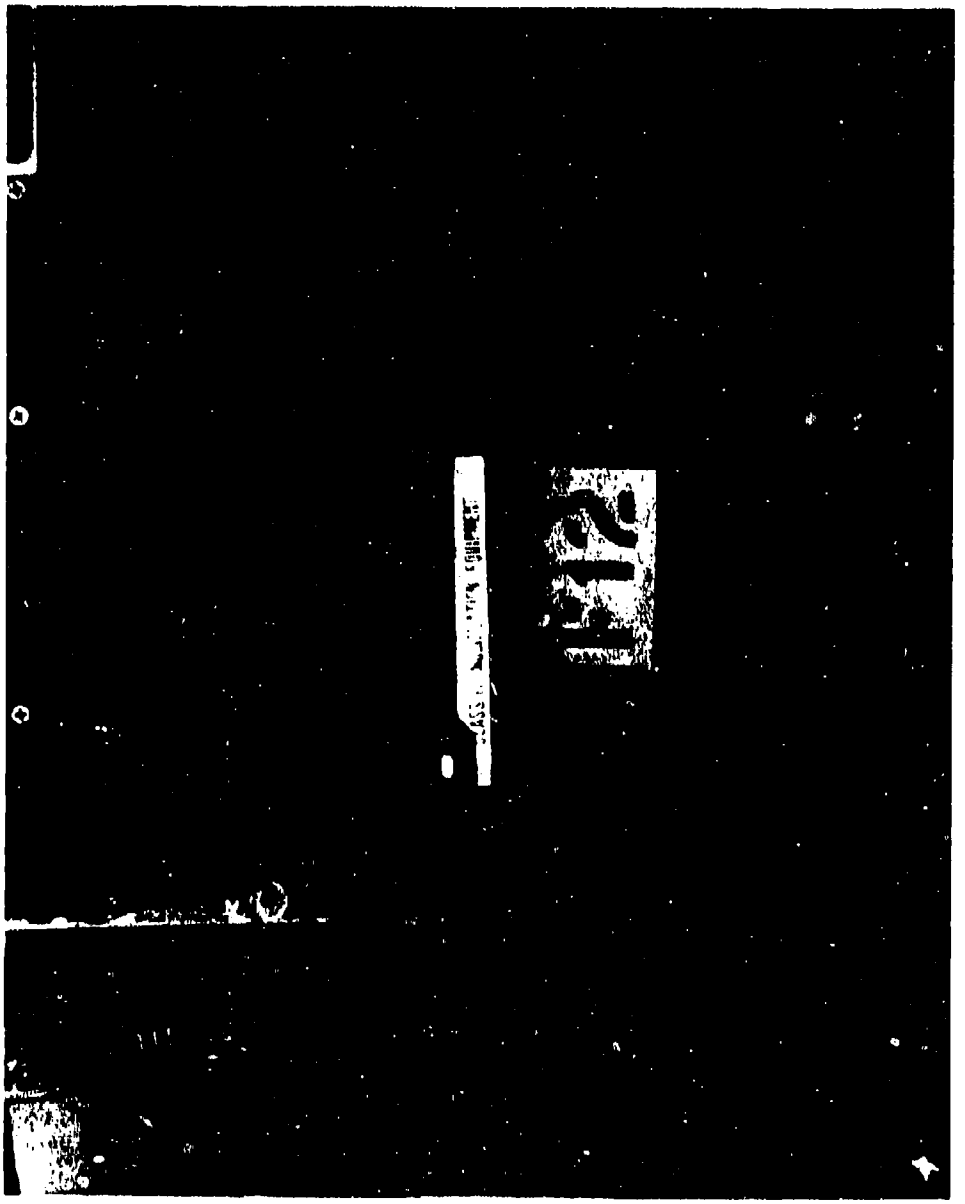


Figure A-79. Transducer Location Below Ballistics Computer Compartment on Structure

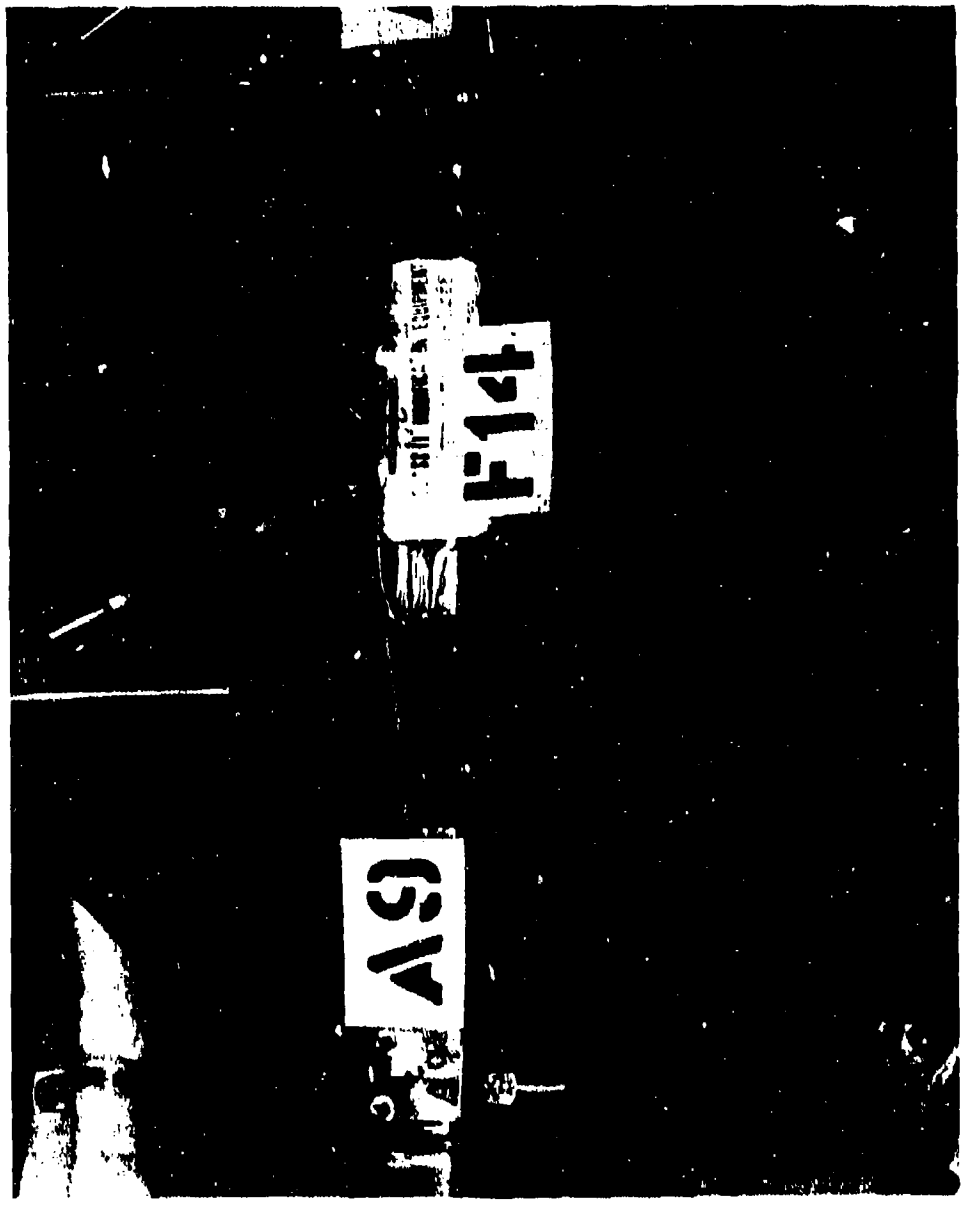


Figure A-80. Transducer Location Near Top of TFR Compartment

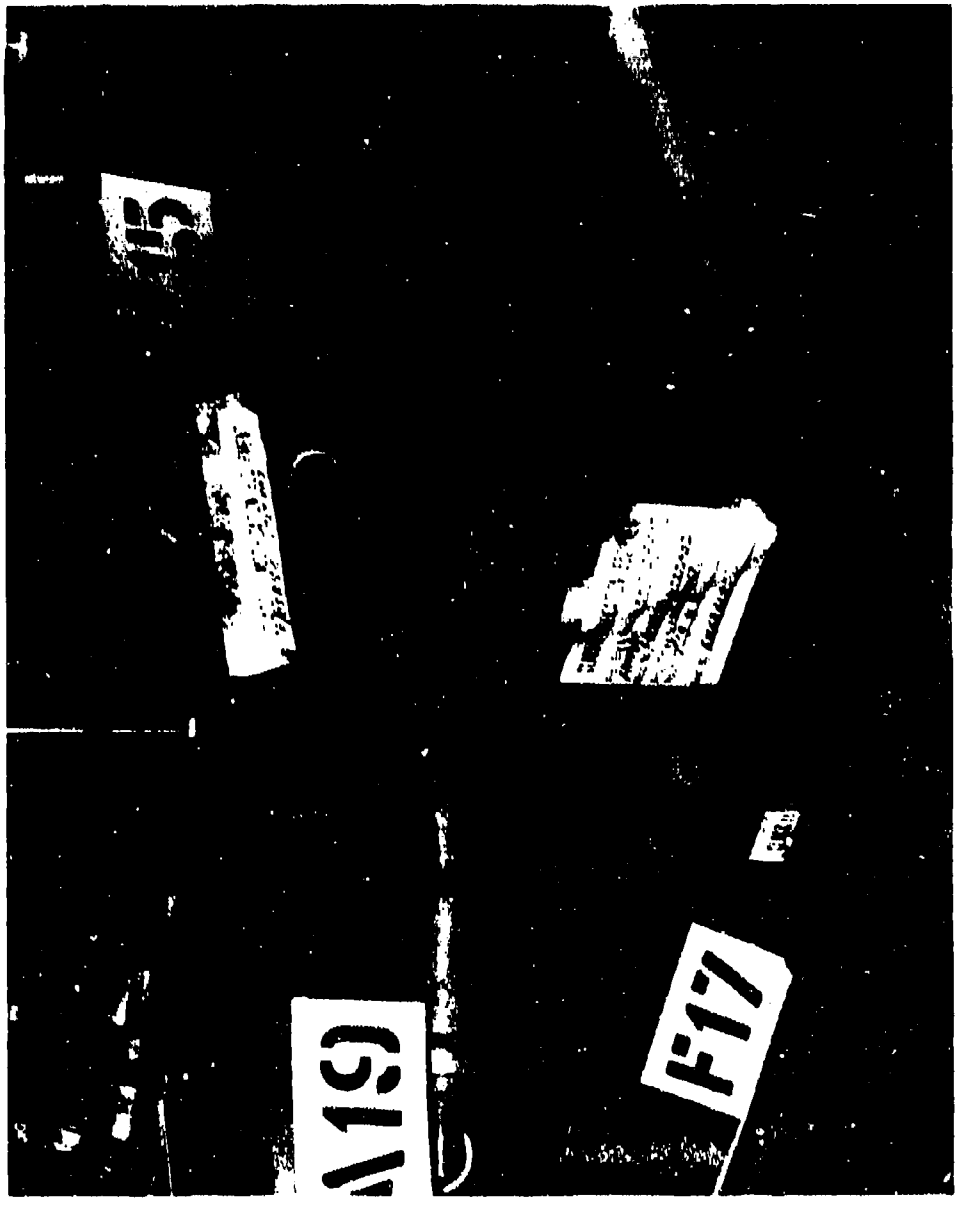


Figure A-81. Transducer Location Near AN/ARC-109 Compartment

TABLE A-1

DESCRIPTION OF TRANSDUCER LOCATIONS*

		FS	BL	WL
A1A	VERT - ON STRUCTURE AFT OF BALLISTICS COMPUTER	123	-20	147
A2A	VERT - FWD END OF HORIZ SUPPORT UNDER TFR COMPUTER COMP. NEAR BKHD	128	-20	151
A3A	LAT - NEAR A2	128	-20	151
A4A	VERT - CENTER OF HORIZ SUPPORT BELOW TFR COMPUTER COMP.	138	-20	151
A5A	NORM - FWD INSIDE FLANGE WHERE DOOR RESTS CENTER OF TFR CMPT COMPARTMENT	119	-27	160
A6A	VERT - HORIZONTAL SUPPORT ABOVE TFR COMPUTER COMP. NEAR BKHD	121	-28	174
A7A	VERT - CENTER OF HORIZ SUPPORT ABOVE TFR COMPUTER COMP.	129	-23	172
A8A	VERT - HORIZ SUPPORT UNDER AFT CORNER OF RECVR/TR RADAR APN-147	137	-23	171
A9A	VERT - CENTER OF HORIZ SUPPORT ABOVE POWER/AMP AN/ARC-118 COMPARTMENT	140	-24	171
A10A	VERT - FWD CORNER OF HORIZ SUPPORT FOR POWER/AMP AN/ARC-118	137	-24	161
A11A	VERT - AFT END OF HORIZ SUPPORT BRACKET FOR POWER/AMP AN/ARC-118	166	-24	161
A12A	VERT - FWD CORNER OF SUPPORT STRUCTURE UNDER ANT CONT AN/ARC-118	174	-25	148
A13A	VERT - UNDER AFT OUTER SHOCK MOUNT FOR COMPTR ASSY	184	-28	184
A14A	VERT - ON COMPTR ASSY ABOVE SHOCK MOUNT	182	-24	188
A15A	VERT - CENTER OF HORIZ SUPPORT UNDER AN/ARC-186	177	-20	163
A16A	VERT - ON HORIZ SUPPORT UNDER AFT CORNER OF AN/ARC-186	184	-24	163
A18A	VERT - AFT CORNER OF HORIZ SUPPORT ABOVE GEN CONTROL	202	-30	178
A19A	VERT - UNDER AFT OUTER SHOCK MOUNT FOR AMP RELAY AN/ARA-88	199	-30	178
A20A	VERT - ON AMP RELAY AN/ARA-88 ABOVE SHOCK MOUNT	192	-28	174
A21A	VERT - AFT CORNER OF HORIZ SUPPORT FOR XMTR AN/ARN-77	188	-30	177
A22A	VERT - CENTER OF HORIZ SUPPORT - FOR XMTR AN/ARN-77	181	-30	177
A23A	VERT - UNDER FWD CORNER OF SYNCHRONIZER AN/APG-113	183	10	148
A24A	VERT - LOWER AFT CORNER RCVR/XMTR MOD AN/APG-113	135	10	164
A25A	VERT - SUPPORT SHELF BY LOWER AFT MOUNT FOR SYNCHRONIZER	137	28	141
A30A	VERT - CENTER OF HORIZ SUPPORT UNDER FLIGHT CONT. COMPUTER	145	24	149
A31A	VERT - AFT CORNER HORIZ SUPPORT UNDER FLIGHT CONT. COMPUTER	153	24	149
A32A	VERT - CENTER OF HORIZ SUPPORT UNDER FEEL & TRIM CONTROL	144	24	189
A33A	VERT - AFT CORNER OF HORIZ SUP BRACKET UNDER FEEL & TRIM CONTROL	153	24	188
A34A	VERT - CENTER OF HORIZ SUPPORT UNDER AB/MACH AMP	147	23	166
A35A	VERT - FWD CORNER OF HORIZ SUPPORT UNDER ALT/VERT SPEED AMP	138	23	166
A36A	VERT - HORIZ SUPPORT UNDER VID SIG PROCESS AN/APG-189	168	38	166
A37A	VERT - FWD LOWER MOUNT BRACKET FOR STAB PLATFORM AN/AJB-28	178	38	144
A38A	VERT - UNDER AFT OUTER SHOCK MOUNT FOR COMPUTING AMP AN/ASQ-23	188	38	167
A39A	VERT - UNDER SHOCK MOUNT FOR COMPUTING GYRO AN/ASQ-23	193	38	167
A40A	VERT - AFT CORNER OF HORIZ SUPPORT FOR GYRO AN/ASQ-23	201	38	167
A41A	FLA - CORNER OF HORIZ SUP BRACKET FOR GYRO AN/ASQ-23	201	38	167
A42A	VERT - STRUCTURE UNDER STABILIZED PLATFORM AN/AJB-28	178	87	148
A43A	VERT - NEAR TOP RIGHT MOUNT OF FWD LOOKING RADAR FWD SIDE OF BKHD.	114	-9	164
A44A	FLA - NEAR A43A	114	-9	164
A45A	NORM - ON BKHD NEAR BOTTOM BEHIND DC POWER PANEL	207	+23	156
A46A	NORM - ON BKHD AFT OF GEN. CONTROL UNIT	207	24	189
A47A	NORM - ON BKHD AFT OF AC POWER TRANSFER ASSY COMP.	207	22	154
A48A	NORM - ON BKHD BELOW A47 NEAR BOTTOM EDGE	207	22	144
A49A	NORM - ON NOSE BKHD NEAR TOP REAR CORNER OF TFR COMPUTER COMP.	116	-18	168
A50A	NORM - NEAR A49	116	-18	167
A51A	NORM - ON NOSE BKHD NEAR TOP FRONT CORNER OF TFR COMPUTER COMP.	116	-28	168
A52A	NORM - ON NOSE BKHD NEAR BALLISTICS COMPUTER COMP.	120	+14	149
B1M	FLUSH - CENTER OF RIGHT SIDE, 68" AFT NOSE TIP	98	-28	170
B1A	NORMAL TO SKIN NEAR B1M	-85	-28	170
B2M	FLUSH - 47" AFT NOSE BKHD, 19" RIGHT FROM BOTTOM	149	-12	135

NOTE: Accelerometers are identified with an A and microphones with an M in the last character of the transducer ID. The transducers F1-F19 are thermocouples.

TABLE A-1 (Continued)

DESCRIPTION OF TRANSDUCER LOCATIONS

B2A	NORMAL TO SKIN NEAR B2M	145	-12	136
B3M	FLUSH - NEAR TOP FWD OF CANOPY 13" LEFT OF C/L	143	25	166
B3A	NORMAL TO SKIN NEAR B3M	155	25	180
B4M	FLUSH - 40" FWD OF WEAPONS BAY ON NOSE GEAR DOOR	238	7	138
B4A	NORMAL TO SKIN NEAR B4M	238	7	138
B5M	FLUSH - 113" AFT NOSE SKHD, 21" BELOW BOTTOM EDGE OF RT CANOPY (FS 219)	234	-38	170
B5A	NORMAL TO SKIN NEAR B5M	230	-38	170
B6M	FLUSH - FS 268 C/L	263	-38	170
B6A	NORMAL TO SKIN NEAR B6M	268	-38	170
B7M	FLUSH - CENTER OF PANEL 2286 RT. SIDE	287	-38	168
B7A	NORMAL TO SKIN NEAR B7M	287	-38	168
B8M	FLUSH - ON PANEL 2458, 4" AFT OF FWD EDGE	308	38	228
B8A	NORMAL TO SKIN NEAR B8M	378	38	228
N9M	FLUSH - PANEL UPPER ACCESS TO TORQUE TUBE/HORIZ STAB LEFT SIDE	768	88	288
B9A	NORMAL TO SKIN NEAR B9M	788	88	288
B10M	FLUSH - VERT. STAB. FWD. LEFT PANEL NEAR FUSELAGE	718	8	218
B10A	NORMAL TO SKIN NEAR B10M	718	8	218
B11A1	FAA - NEAR B10	707	8	218
B11A2	VERT - NEAR B10	707	8	218
B12M	FLUSH - TOP OF VERTICAL STABILIZER	878	8	318
B12A	NORMAL TO SKIN NEAR B12M	878	8	318
B13M	FLUSH - INBOARD LEFT WING	818	188	288
B13A	NORMAL TO SKIN NEAR B13M	818	197	288
B14M	FLUSH - CENTER LEFT WING	888	29	288
B14A	NORMAL TO SKIN NEAR B14M	888	29	288
B15M	FLUSH - OUTBOARD LEFT WING	858	188	288
B15A	NORMAL TO SKIN NEAR B15M	889	288	288
B16M	FLUSH - TIP OF LEFT WING	88	318	288
B16A	NORMAL TO SKIN NEAR B16M	858	318	288
C1M	FLUSH - WEAPONS BAY FWD WALL ONE-FORTH DOWN RIGHT SIDE	278	-12	153
C2M	FLUSH - WEAPONS BAY FWD WALL MIDWAY DOWN LEFT SIDE	278	11	147
C3M	FLUSH - WEAPONS BAY 51" AFT FOR WALL, MIDDLE OF RIGHT WALL	328	-12	153
C4M	FLUSH - WEAPONS BAY 51" AFT FWD WALL, RIGHT SIDE CEILING	328	-7	147
C5M	FLUSH - WEAPONS BAY 51" AFT FWD WALL, LEFT SIDE OF CEILING	328	8	147
C6M	FLUSH - WEAPONS BAY 51" AFT FWD WALL, MIDDLE OF LEFT WALL	329	22	153
C7M	FLUSH - WEAPONS BAY 128" AFT OF FWD WALL, MIDDLE OF RIGHT WALL	398	-28	157
C8M	FLUSH - WEAPONS BAY 128" AFT OF FWD WALL, RT. SIDE OF CEILING	398	-21	173
C9M	FLUSH - WEAPONS BAY 128" AFT OF FWD WALL, LEFT SIDE OF CEILING	398	21	173
C10M	FLUSH - WEAPONS BAY 128" AFT OF FWD WALL, MIDDLE OF LEFT WALL	398	28	157
C11M	FLUSH - WEAPONS BAY AFT WALL ONE-FORTH DOWN RIGHT CENTER	448	-13	164
C12M	FLUSH - WEAPONS BAY AFT WALL ONE-FORTH DOWN LEFT CENTER	468	15	168
C17A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 288	288	8	168
C18A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 308	308	12	168
C19A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 338	328	8	168
C20A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 358	358	0	171
C21A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 388	388	-6	172
C22A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 408	405	4	173
C23A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 438	438	8	174
C24A	VERT. - CENTER CEILING BEAM OF WEAPONS BAY AT FS 458	458	8	175
C25A	NORM - UPPER RIGHT CENTER OF FWD WALL OF WEAPONS BAY	278	-11	153
C26A	NORM - RIGHT CENTER OF FWD WALL OF WEAPONS BAY	277	-12	158
C27A	NORM - LOWER RIGHT CENTER OF FWD WALL OF WEAPONS BAY	277	-12	143
C28A	NORM - LEFT CENTER OF FORWARD WALL OF WEAPONS BAY	278	8	158
B1A	VERT - SIDEWALL BELOW LT. BOTTOM CORNER OF INSTRUMENT PANEL	232	24	178

TABLE A-1 (Concluded)

DESCRIPTION OF TRANSDUCER LOCATIONS

D2A	LAT - NEAR D1A	259	84	178
D3A	F&A - NEAR D1A	232	84	178
D4A	VERT - SIDEWALL BELOW RT, BOTTOM CORNER OF INSTRUMENT PANEL	231	-87	173
D5A	LAT - NEAR D4A	231	-87	173
D6A	F&A - NEAR D4A	231	-87	173
D7A	VERT - ON INSTRUMENT PANEL LOWER RIGHT SIDE	231	-88	174
D8A	LAT - NEAR D7A	231	-88	174
D9A	F&A - NEAR D7A	231	-88	174
D10A	VERT - NEAR TOP CENTER OF INSTRUMENT PANEL	228	-1	198
D11A	F&A - 8° OFF C/L, LOWER INSTRUMENT PANEL ON TACAN ARN-84 UNIT	238	-4	188
D12A	VERT - CENTER OF LEFT INSTRUMENT PANEL	230	16	197
D13A	VERT - CENTER OF RIGHT INSTRUMENT PANEL	230	+16	198
D14A	VERT - ON RIGHT SIDE MOUNT OF GUN-SIGHT	228	-37	198
D15A	VERT - NEAR D11A	238	-8	188
D16A	VERT - AFT ON CENT CONSOLE ON ARC-190U,C-8364,CONTROL RECEIVER TRANS UNIT	287	-4	197
F1M	FLUSH - FWD LANDING GEAR DOOR, MIDDLE, 18" FWD OF AFT EDGE	248	7	138
E2A	NORMAL - LEFT ENGINE LT FWD MOUNT	638	68	178
E3A	TANGENTIAL - LEFT ENGINE LT FWD MOUNT	638	68	178
E4A	NORMAL - LEFT ENGINE LT AFT MOUNT	688	68	168
E5A	TANGENTIAL - LEFT ENGINE LT AFT MOUNT	688	68	168
E6A	VERT - LT MAIN LANDING GEAR UPPER REAR PIVOT (FOR LANDING LOADS)	662	18	148
E7M	FLUSH - CENTER OF VERT STAB 1" BELOW RIBH	878	0	318
E11A	VERT - TIP AFT OF VERT STAB ON STRUCTURE	878	318	318
E12A	LAT - NEAR E11A	878	318	318
E13A	VERT - FWD TIP OF LEFT WING	888	388	288
E14A	NORMAL - ON ACCESSORY GEAR BOX	648	88	148
E15A	TANGENTIAL - ON ACCESSORY GEAR BOX	648	88	148
E16A	F&A - ON ACCESSORY GEAR BOX	648	88	148
E17A	TANGENTIAL - ON FIRING PLUG TERMINAL, LEFT ENGINE	648	88	168
F1	T/C1 - SURFACE TEMP, FWD SIDE OF BULKHEAD INSIDE RADOME	118	0	171
F2	T/C2 - SURFACE TEMP, AFT SIDE OF NOSE BULKHEAD	188	-24	166
F3	T/C3 - AIR TEMP, NEAR AFT SIDE OF NOSE BULKHEAD	122	+28	164
F4	T/C4 - OUTLET ECS AIR TEMP, TFR TRANSMITTER	129	-28	161
F5	T/C5 - SURFACE TEMP, TFR ANTENNA SUPPORT (FWD)	122	+28	163
F6	T/C6 - TFR TRANSMITTER OUTLET ECS AIR TEMP,	186	-28	163
F7	T/C7 - TFR ECS AIR INLET TEMP, (IN DUCT)	141	-14	167
F8	AFR - TFR ECS AIR FLOW RATE (IN DUCT)	141	-14	167
F9	HUM - TFR ECS AIR INLET DEWPOINT TEMP, (IN DUCT)	141	+14	167
F1 0	PRES - RIGHT FORWARD BAY PRESSURE	107	-24	163
F1 1	T/C8 - RIGHT FORWARD BAY DOOR SKIN SURFACE TEMP,	141	+28	177
F1 R	T/C9 - SURFACE TEMP, OF BOTTOM STRUCTURE RIGHT FWD BAY	133	-28	148
F1 3	T/C10 - AIR TEMP, FWD SIDE OF BULKHEAD INSIDE RADOME	116	-9	163
F1 4	T/C11 - AIR TEMP, ABOVE AND LEFT OF TFR	134	-24	171
F1 5	T/C12 - AIR TEMP, ABOVE ARC-164	181	-38	178
F1 6	T/C13 - AIR TEMP, AFT OF ARC-164	183	-26	167
F1 7	T/C14 - OUTLET AIR ECS TEMP, OF ARC-164	184	+28	164
F1 8	AFR - ECS AIRFLOW RATE TO AN/ARC-190 (IN DUCT)	179	-14	162
F1 9	T/C15 - LEFT ENGINE NEAR E17	648	88	168

TABLE A-2

PUID/CHANNEL/SWITCH POSITION MATRIX

		TAPE CHANNEL											
		2	3	5	6	7	8	9	10	12A	12B	13A	13B
SP	1	A1A	A2A	B1A	A29A	B1M	A10A	A27A	A32A	A28A	A42A	A3A	A4A
SP	2	A21A	A22A	A38A	A40A	A39A	A41A	A6A	A5A	A7A	A9A	A8A	E6A
SP	3	A31A	A36A	B3A	B2A	B3M	B2M	A34A	A30A	A43A	A44A	A35A	E6A
SP	4	A11A	A12A	A37A	A33A	A13A	A19A	A14A	A20A	A15A	A16A	A18A	E6A
SP	5	B5A	B6A	B6M	B5M	D15A	D1A	E2A	D12A	D14A	E12A	E6A	E13A
SP	6	B7M	B8M	B8A	B7A	B10M	B9M	B10A	B9A	B11A1	B11A2	B12M	B12A
SP	7	B13M	B14M	B14A	B13A	B16M	B15M	B16A	B15A	E7M	E12A	E11A	E13A
SP	8	C1M	C2M	C4M	C3M	C6M	C5M	C8M	C7M	C9M	C12M	C10M	C11M
SP	9	C17A	C18A	C19A	C24A	C20A	E1M	C21A	B4M	B4A	E6A	C22A	C23A
SP	10	D4A	D5A	D8A	D7A	D2A	D10A	D6A	D13A	D16A	D11A	D9A	D3A
SP	11	C25A	A49A	A50A	C27A	A51A	C26A	A52A	C28A	A45A	A46A	A47A	A48A
SP	12	E2A	E3A	E5A	E4A	E14A	E6A	E16A	E15A	E17A	E13A	D14A	B12M

(VOICE-CH#1 PCM-CH#4&11 TIME-CH#14)

TABLE A-3

AIRCRAFT TEST CONFIGURATIONS

Flight Mission Number	Flight Date	Left Weapons Bay Configuration	Right Weapons Bay Configuration	Switch Position for Weapons Bay Doors Open	Spoiler Configuration #1, #2, #3	External Store Configuration Sta3,	Sta4,	Sta5,	Sta6	Switch Position Gun Fire
5030	5 Oct 79	Clean	Clean	1,9,9	Clean	None	None	None	None	
3712	7 Nov 79	Clean	Clean	None	Clean	None	None	None	None	
3028	14 Nov 79	Clean	Clean	None	Clean	None	None	None	None	
1014	3 Dec 79	Clean	Clean	3	Clean	None	None	None	None	
3020	5 Dec 79	Clean	Clean	8	Clean	None	None	None	None	
3012/3015	9 Jan 80	Clean	Clean	8,9	Clean	GBU 10C/B	GBU 10C/B	GBU 10C/B	GBU 10C/B	
5015	18 Jan 80	Clean	Clean	9	Clean	None	GBU 10C/B	GBU 10C/B	None	
5018	18 Jan 80	Clean	Clean	8,9	Clean	None	None	None	None	
1010	21 Jan 80	Clean	Clean	8	Clean	None	None	None	None	
1011	28 Apr 80	Clean	Clean	None	#2	None	None	None	None	
1012	23 Apr 80	Clean	Clean	None	#2	None	None	None	None	
3012	30 Apr 80	BDU-8	BDU-8	8,9,8	#1	None	MK84	GBU 10C/B	None	
3013	30 Apr 80	BDU-8	BDU-8	9,8,9	#1	None	None	None	None	
4705	1 May 80	BDU-8	BDU-8	8,9	#2	None	None	None	None	
4706	1 May 80	BDU-8	BDU-8	8,8,9	#2	None	None	None	None	
2008	6 May 80	Clean	Clean	8,9,8,9	#1, #3	None	None	None	None	
2006/2010	13 May 80	Clean	Gun (No Ammo)	9,9	#1	MK84	MK84	GBU 10C/B	GBU 10C/B	
5011	16 May 80	Clean	Gun (No Ammo)	None	#1	CTU-2	CTU-2	CTU-2	CTU-2	
1015	19 May 80	Clean	Gun (No Ammo)	None	#1	None	None	None	None	
1016	19 May 80	Clean	Gun (No Ammo)	8	#1	None	None	None	None	
5014	23 May 80	BDU-8	Gun (No Ammo)	8,9,8	#1	None	None	None	None	
2702	27 May 80	BDU-8	Gun (No Ammo)	8,9	#1	None	None	None	None	
5012	16 May 80	Clean	Gun (No Ammo)	None	#1	None	None	None	None	
5019	6 Jun 80	Clean	Gun (2K Rounds)	8,9	#1*	None	None	None	None	1,2,3,4,5
5020	6 Jun 80	Clean	Gun (2K Rounds)	8,9	None	None	None	None	None	1,2,6,7,8,9
1010	9 Jun 80	Clean	Gun (2K Rounds)	8	#1*	None	None	None	None	10,11,12,1,2,3
1011	9 Jun 80	Clean	Gun (2K Rounds)	8,9,8,9	None	None	None	None	None	5,1,2,3,4
2015/12/16	10 Jun 80	Clean	Gun (2K Rounds)	None	None	MK84	MK84	MK84	MK84	5,9,10,11,12
3013	11 Jun 80	BDU-8	Gun (2K Rounds)	8,9,9,8	None	None	None	None	None	
3014	11 Jun 80	Clean	Gun (2K Rounds)	None	None	CTU-2	CTU-2	CTU-2	CTU-2	
1010	16 Jun 80	Clean	Gun (2K Rounds)	None	None	MK84	MK84	MK84	MK84	1,2,3,4,5
5012/5016	20 Jun 80	Clean	Gun (2K Rounds)	None	None	MK84	MK84	GBU 10C/B	GBU 10C/B	1,2,3,4,5
1010	23 Jun 80	Clean	Clean	8,9,8	None	None	None	None	None	
6702	13 Sep 80	BDU-8	BDU-8	8,8	None	None	None	None	None	
6704	13 Sep 80	Clean	Clean	8,8	#1	None	None	None	None	
3704	17 Sep 80	Clean	Clean	8,9,8	#2	None	None	None	None	
4023	18 Sep 80	Clean	Clean	None	#2	None	None	None	None	

*Left Spoiler Only

APPENDIX B

RMS ACCELERATION AND SOUND PRESSURE LEVEL DATA

TABLE B-1

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 1

TC	MISSION	DATE	REC	A1A	A2A	B1A	A29A	A28A	A42A	B1N	A18A	A27A	A32A	A3A	A4A
7	1016	800519	23	2.00	.70	.80	2.10	.40	13.10	127.00	.80	.40	.55	.65	.00
	3313	800611	22	1.60	.70	.80	2.14	.34	2.69	137.00	.50	.35	.44	.63	.00
17	5014	800523	3	.50	.35	.20	.60	.10	3.00	124.00	.30	.15	.20	.20	.00
	3814	800611	3	.50	.31	.23	.54	.11	.52	119.40	.41	.14	.14	.25	.00
18	1010	800623	5	.90	.49	.45	1.27	.22	1.10	125.50	.57	.25	.22	.42	.00
19	2010	800506	3	1.30	.60	.84	2.00	.40	13.00	127.00	.90	.30	.50	.60	4.00
	1315	800519	3	1.00	.00	.50	1.40	.20	8.50	127.00	.60	.20	.35	.46	.00
	2702	800527	3	1.30	.65	.70	1.00	.34	13.10	.00	.70	.33	.47	.50	.00
21	1016	800519	3	2.10	1.10	1.30	3.00	.70	24.30	130.00	1.30	.50	.93	.95	.00
22	3012	800430	3	.00	.40	.60	1.10	.20	7.70	124.40	.50	.90	.30	.00	.00
	6702	800913	4	.95	.40	.62	1.30	.22	2.00	.00	.72	.25	.20	.40	1.20
	6704	800913	3	.90	.44	.60	1.20	.21	2.70	123.70	.71	.29	.10	.60	1.20
24	1612	800420	15	1.70	.40	1.10	2.10	.30	15.00	.00	.90	.35	.90	.70	4.20
	4706	800501	3	1.50	.00	1.10	2.10	.30	15.00	127.30	.00	.40	.90	.70	4.40
27	1011	800420	3	.61	.29	.40	.00	.23	5.00	122.20	.37	.25	.31	.29	1.00
28	1011	800420	15	.70	.00	.50	1.00	.30	0.00	123.00	.50	.30	.34	.40	2.00
29	1011	802420	31	1.00	.62	1.00	1.20	.23	9.00	127.00	.00	.31	.34	.47	2.00
60	5019	800606	19	4.70	2.00	10.00	6.40	15.00	7.60	130.00	2.70	1.00	1.50	2.60	.00
	1211	800609	15	5.70	2.60	11.51	0.97	24.90	10.70	.00	3.00	1.40	1.90	2.30	.00
61	5020	800606	18	3.90	1.50	0.50	4.60	10.30	6.20	127.20	1.00	.70	1.20	1.70	.00
62	1010	800609	19	5.30	2.20	12.30	7.40	14.00	0.60	130.50	2.40	1.10	2.11	2.20	.00
64	2015	800610	19	4.00	1.00	11.00	7.00	13.50	6.20	127.40	2.50	.90	1.40	2.40	.00
65	1010	800616	21	2.90	1.10	0.00	4.10	6.40	.00	126.70	1.40	.05	.07	1.20	.00
67	3012	800620	15	5.50	2.00	13.70	0.10	0.00	7.90	127.30	2.60	1.12	1.30	2.20	.00
84	3019	800606	25	.50	.32	.30	.60	.12	.60	122.00	.35	.13	.14	.30	.00
85	5012	800620	4	.66	.30	.32	.70	.13	.70	123.90	.46	.10	.17	.30	.00
86	2015	800610	3	.35	.21	.17	.32	.14	.31	120.00	.23	.10	.12	.17	.00

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 1

TC	MISSION	DATE	REC											
87	3819	888486	3	.78	.48	.48	1.00	.28	.90	124.00	.48	.28	.28	.38	.90
	1818	888489	3	.69	.36	.35	.89	.12	.82	123.88	.37	.16	.16	.29	.88
	1818	888616	3	.78	.34	.34	.84	.18	.79	123.98	.56	.17	.18	.38	.88
88	3828	888488	2	.63	.33	.39	.92	.17	.98	123.28	.35	.19	.28	.28	.98
89	1811	888689	3	.53	.38	.28	.71	.28	.78	123.18	.33	.26	.24	.24	.98
	3813	888611	3	.55	.29	.28	.67	.12	.84	123.88	.38	.14	.18	.25	.88
98	2888	888513	9	1.18	.58	.68	1.58	.38	9.48	125.48	.68	.38	.48	.88	2.58

SWITCH POSITION: 2

TC	MISSION	DATE	REC	A21A	A22A	A38A	A48A	A7A	A9A	A39A	A41A	A6A	A8A	A8A	E6A
7	1816	888519	24	1.28	1.18	2.68	1.28	1.98	2.38	1.78	1.98	.77	1.38	1.88	.88
	3813	888611	23	.71	.72	1.88	2.88	.78	.78	.88	.87	.85	1.78	.77	.88
17	5814	868523	4	.39	.35	.52	.32	.36	.86	.41	.36	.39	.76	.27	.88
	3214	888611	4	.38	.28	.25	.38	.15	.28	.38	.38	.38	.58	.28	.88
18	1818	888623	6	.43	.88	.39	.38	.29	.32	.38	.41	.46	.94	.38	.88
19	2888	888586	4	1.88	1.16	3.88	1.28	1.88	4.88	2.88	.98	.78	1.78	1.18	3.88
	1815	888519	4	.88	.88	2.88	.98	.88	2.38	1.38	.92	.84	1.88	.83	.88
21	1816	888519	4	2.88	2.88	5.38	2.38	1.46	4.28	3.86	1.88	1.28	2.38	1.28	.88
22	3812	888436	4	.78	.88	1.68	.78	.58	1.78	1.88	.78	.88	.78	.88	.88
	6782	888913	5	.77	.78	1.68	.65	.61	.82	1.88	.68	.48	.88	.65	.56
	6784	888513	4	.88	.88	1.78	.78	.78	.55	1.18	.82	.48	.88	.68	.52
23	1812	888428	4	.98	.88	2.18	1.88	.98	2.78	1.48	1.98	.78	1.88	.98	2.28
24	1812	888428	16	1.28	.58	3.18	1.48	1.18	2.48	1.78	1.28	.98	1.38	1.18	2.48
	4786	888581	4	1.38	1.28	3.28	1.48	1.18	2.78	2.88	1.38	.86	1.48	1.88	2.38
25	1812	888428	28	1.78	.38	2.98	1.68	.68	2.18	2.88	1.48	1.28	2.88	.88	4.28
27	1811	888428	4	.61	.86	1.38	1.88	.35	1.28	1.18	1.48	.35	.58	.38	1.16
28	1811	888428	16	.78	.88	1.58	1.28	.48	1.18	1.28	1.68	.68	.96	.58	1.18
29	1811	888428	32	1.18	1.88	1.68	1.28	.48	1.18	1.38	1.48	.78	1.28	.48	2.18

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 2

TC	MISSION	DATE	REC	A21A	A22A	A38A	A48A	A7A	A9A	A39A	A41A	A6A	A8A	A0A	EGA
60	5819	800606	20	6.00	6.20	5.30	5.00	1.70	1.50	4.00	5.60	2.60	4.20	1.90	.00
	1811	800609	16	7.60	6.00	6.00	7.20	2.30	2.10	5.60	8.30	2.40	4.20	2.10	.00
61	5820	800606	19	4.50	4.70	4.00	3.60	1.50	1.20	3.70	3.90	1.60	3.50	1.50	.00
62	1818	800609	20	4.90	4.50	5.00	4.00	1.70	1.30	4.30	5.40	2.20	4.00	1.70	.00
64	2715	800610	20	3.40	.90	3.40	3.20	1.30	1.30	2.10	3.00	1.30	3.00	1.30	.00
65	1819	800610	22	3.40	2.00	3.30	4.00	1.20	1.10	3.70	3.50	1.20	2.20	1.20	.00
67	5812	800620	16	4.70	4.30	5.60	4.00	1.40	1.30	3.00	4.40	2.10	4.30	1.40	.00
84	5819	800606	20	.34	.23	.30	.20	.10	.10	.30	.30	.30	.60	.20	.00
85	5812	800620	5	.39	.27	.40	.40	.23	.23	.40	.40	.30	.70	.25	.00
86	2815	800610	4	.29	.00	.26	.27	.15	.10	.20	.29	.30	.54	.10	.00
87	5819	800606	4	.40	.30	.40	.40	.22	.20	.40	.40	.40	.70	.22	.00
	1818	800609	4	.32	.24	.20	.20	.10	.10	.20	.31	.30	.72	.24	.00
	1818	800616	4	.40	.27	.32	.02	.22	.22	.50	.50	.40	.72	.24	.00
88	5820	800606	3	.40	.30	.70	.70	.20	.23	.60	.00	.30	.00	.26	.00
89	1811	800609	4	.50	.40	1.20	1.20	.17	.15	1.10	1.20	.20	.32	.10	.00
	3813	800611	4	.30	.22	.30	.31	.10	.10	.30	.40	.33	.50	.20	.00
90	2006	800513	10	.00	.00	2.50	1.00	.90	2.30	1.30	.70	.40	1.00	.00	.40

SWITCH POSITION: 3

TC	MISSION	DATE	REC	A31A	A36A	B3A	B2A	A43A	A44A	B3M	B2M	A34A	A20A	A39A	EGA
7	1816	800519	25	.00	.00	.00	24.00	.40	2.30	.00	.00	.07	.40	.46	.00
	3813	800611	24	.60	.70	6.00	.00	.53	.70	.00	141.00	.00	.60	.62	.00
17	5814	800523	5	.00	.00	.00	4.00	.00	.00	.00	146.60	.00	.00	.00	.00
	5814	800523	6	.24	.22	1.00	5.30	.23	.92	135.40	150.00	.14	.21	.10	.00
	3814	800611	5	.00	.00	1.00	.70	.20	.22	135.00	135.00	.10	.17	.14	.00
18	1818	800623	7	.33	.00	2.00	1.30	.20	.32	.00	.00	.19	.20	.26	.00

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 3

TC	MISSION	DATE	REC	A31A	A36A	B3A	B2A	A43A	A44A	B3M	B2M	A34A	A38A	A35A	E6A
19	2808	800506	5	.60	1.00	5.00	27.40	.50	2.20	.00	150.30	.60	.50	.69	3.20
	1815	800519	6	.62	.80	3.50	23.00	.40	2.00	.00	157.00	.50	.40	.49	.00
	2782	800527	5	1.00	1.00	5.40	32.40	.49	2.30	.00	160.00	.60	.52	.65	.00
21	1816	800519	5	1.40	2.00	10.00	52.40	.80	4.10	145.60	161.00	.97	1.20	1.20	.00
22	3812	800430	5	.60	.60	2.00	16.00	.30	1.30	131.20	156.00	.00	.40	.00	.00
23	1812	800420	5	.00	.74	4.60	21.40	.40	1.80	.00	.00	.62	.54	.57	2.00
24	1812	800420	17	.90	1.00	6.10	24.40	.50	2.40	131.80	.00	.70	.54	.67	2.50
	4706	800501	5	.86	.95	6.10	26.00	.50	2.30	132.00	160.00	.64	.56	.70	2.60
25	1812	800420	29	.90	.80	5.60	17.00	.60	2.90	.00	153.40	.40	.65	.60	4.20
27	1811	800420	5	.57	.40	2.60	8.70	.21	1.10	127.60	154.50	.26	.30	.30	1.30
28	1811	800420	17	.63	.50	3.00	9.30	.20	1.10	128.00	156.00	.32	.40	.40	1.40
29	1811	800420	33	.70	.60	3.00	10.00	.30	.00	128.20	151.10	.30	.40	.40	1.00
60	5819	800606	21	2.00	1.60	6.20	15.00	1.40	2.20	.00	.00	.94	1.40	1.50	.00
	5819	800606	22	2.00	1.70	7.00	15.00	1.40	2.30	.00	.00	1.00	1.40	1.60	.00
	1811	800609	17	2.70	2.00	7.90	14.90	1.50	3.00	.00	.00	1.10	1.70	1.30	.00
62	1810	800609	21	1.30	.80	4.40	12.00	1.20	1.80	143.00	155.40	1.00	1.20	1.40	.00
66	1810	800616	15	1.50	1.30	6.10	10.50	1.20	1.90	.00	152.90	1.10	1.10	1.40	.00
67	5812	800620	17	.00	.00	8.10	11.00	1.20	2.00	142.00	.00	1.20	1.20	1.30	.00
84	5819	800606	27	.24	.14	1.10	.95	.21	.20	135.40	135.30	.13	.10	.10	.00
85	5812	800620	6	.30	.10	1.60	1.10	.22	.20	134.00	130.30	.15	.25	.20	.00
86	2815	800610	5	.20	.00	.93	.00	.20	.20	134.00	133.10	.10	.10	.12	.00
87	5819	800606	5	.30	.20	1.70	1.10	.24	.30	135.00	132.40	.14	.34	.22	.00
	1810	800609	5	.27	.10	1.50	1.00	.22	.27	135.00	.00	.13	.22	.20	.00
	1810	800616	5	.30	.20	1.60	1.10	.22	.27	134.00	.00	.15	.25	.21	.00
88	5820	800606	4	.40	.32	2.40	1.10	.20	.26	127.00	132.70	.23	.30	.24	.00
89	1811	800609	5	.32	.22	1.10	1.00	.10	.23	128.00	.00	.20	.20	.22	.00
	5813	800611	5	.24	.13	1.20	1.00	.20	.23	129.00	135.00	.11	.22	.15	.00
90	2806	800513	11	.00	.05	5.40	21.50	.30	1.70	.00	156.00	.40	.40	.00	3.40

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITIONS 1 4

TC	MISSION	DATE	REC	A11A	A12A	A37A	A33A	A15A	A16A	A13A	A19A	A14A	A20A	A18A	E6A
7	5812	080628	28	1.38	2.28	1.38	.18	1.18	.84	.78	.51	.13	.17	.43	.08
17	5814	080523	7	.53	1.18	.58	.08	.68	1.58	.73	.41	.18	.14	.26	.08
	3814	080611	6	.42	.68	.30	.08	.48	.38	.28	.24	.08	.18	.15	.08
18	1818	080623	8	.64	1.02	.60	.18	.52	.41	.31	.20	.09	.11	.23	.08
19	2308	080506	6	1.48	4.88	3.08	.28	2.68	5.18	2.38	1.38	.26	.38	1.08	3.18
	1815	080519	6	1.18	.88	2.08	.18	1.58	4.08	2.08	1.18	.28	.38	.78	.08
	2782	080527	6	1.58	4.08	2.58	.12	2.18	6.08	2.68	1.38	.29	.38	1.08	.08
21	1816	080519	6	2.48	7.48	5.18	.28	5.08	11.48	4.68	2.08	.43	4.08	2.08	.08
22	3813	080430	3	.86	2.38	1.78	.11	1.16	3.18	1.58	.82	.15	.28	.88	.08
	4785	080501	4	.92	2.38	1.88	.17	1.18	3.88	1.66	.98	.20	.22	.56	2.08
23	1812	080428	6	1.28	3.68	2.58	.16	.17	4.88	2.08	1.28	.21	.38	.98	2.68
24	1812	080428	18	1.78	4.68	3.28	.28	2.18	5.98	2.58	1.58	.38	.28	1.08	2.48
	4786	080501	6	1.58	4.68	3.28	.21	2.28	6.28	3.08	1.48	.38	.26	1.08	2.68
25	1812	080428	38	1.98	7.18	4.18	.25	2.18	6.48	2.38	1.48	.38	.23	1.38	4.08
27	1811	080428	6	.58	1.98	1.48	.15	.88	2.78	1.22	.78	.28	.28	.58	1.38
28	1811	080428	18	.68	2.48	1.78	.28	1.08	3.88	1.48	.77	.28	.28	.58	1.68
29	1811	080428	34	1.08	3.88	2.28	.28	1.18	3.48	1.48	1.18	.28	.28	.78	2.08
66	5819	080606	25	2.88	8.88	5.78	.54	4.68	3.58	1.88	4.18	.39	.51	3.78	.08
	1811	080609	18	3.38	9.58	6.88	.58	5.14	3.76	2.58	5.26	.43	.58	4.78	.08
	5812	080628	18	3.38	9.48	6.28	.49	3.98	3.88	2.58	3.98	3.98	.57	3.98	.08
66	1818	080616	16	2.78	7.68	5.28	.37	4.48	3.18	1.98	3.38	.33	.68	3.48	.08
84	5819	080606	28	.56	.77	.48	.09	.47	.37	.24	.27	.07	.09	.19	.08
85	5812	080628	7	.38	.88	.52	.08	.43	.48	.23	.38	.08	.12	.21	.08
86	2815	080618	6	.39	.68	.29	.18	.48	.28	.28	.23	.08	.18	.16	.08
87	5819	080606	6	.47	.98	.68	.18	.45	.48	.30	.38	.07	.09	.28	.08
	1816	080609	6	.44	.79	.47	.08	.44	.34	.30	.27	.07	.18	.18	.08
	1818	080616	6	.58	.82	.47	.18	.44	.35	.24	.28	.18	.12	.21	.08

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 4

TC	MISSION	DATE	RCC	A11A	A12A	A37A	A33A	A15A	A16A	A13A	A19A	A14A	A28A	A18A	E6A
88	5828	888686	5	.46	.85	.68	.08	.58	.38	.38	.38	.08	.18	.22	.00
89	1811	888689	6	.48	.68	.54	.18	.48	.38	.22	.32	.09	.13	.24	.00
	3813	889611	6	.48	.65	.48	.18	.48	.38	.20	.24	.10	.10	.17	.00
98	2886	888513	12	1.18	2.98	2.18	.18	1.68	4.88	1.98	.99	.28	.38	.78	3.58

SWITCH POSITION: 6

TC	MISSION	DATE	RCC	B5A	B6A	B6N	B5N	D14A	E12A	D15A	D1A	E2A	D12A	E6A	E13A
7	5812	888628	21	3.28	3.58	122.58	.08	.16	8.88	.18	.28	93.28	.12	1.48	.00
17	5814	888523	8	.76	.82	124.38	.08	.18	11.48	.07	.17	95.58	.18	.82	.08
	3814	888611	7	.58	.58	.08	136.88	.18	4.18	.18	.13	45.88	.18	.14	.08
18	1818	888623	8	1.23	1.23	.08	.08	.12	5.38	.07	.17	74.58	.11	1.53	.08
19	2888	888586	7	3.18	4.88	137.68	138.88	.28	28.88	.18	.58	98.38	.13	1.88	37.88
	1815	888519	7	2.88	.88	148.88	136.58	.14	17.38	.18	.48	62.48	.18	1.88	.28
	2782	888527	7	3.48	3.18	139.78	139.88	.28	21.38	.18	.48	85.88	.28	1.88	.88
21	1816	888519	7	6.88	6.18	141.18	.88	.28	35.88	.15	.73	47.28	.17	1.78	.88
22	3813	888438	4	1.98	2.28	131.28	135.18	.18	12.88	.18	.36	.68	.18	.88	.88
	4785	888581	5	1.78	1.98	148.88	.88	.18	12.88	.18	.38	.88	.18	.78	24.88
23	1812	888428	7	2.68	1.18	137.18	.88	.12	15.48	.89	.48	.98	.16	.62	36.88
24	1812	888428	18	3.68	4.18	139.88	.88	.16	21.88	.11	.56	67.28	.12	.88	23.18
	4786	888581	7	3.68	4.88	139.28	138.38	.13	23.88	.18	.53	.88	.18	.74	21.88
26	1812	888428	31	5.88	.88	141.28	142.88	.16	17.18	.18	.52	77.98	.11	1.48	72.18
27	1811	888428	7	2.28	1.78	.88	135.88	.18	9.88	.18	.27	43.88	.18	.58	17.88
28	1811	888428	19	2.48	2.28	135.68	136.48	.28	12.88	.18	.38	52.28	.18	.58	26.88
29	1811	888428	35	3.98	3.38	138.28	138.88	.18	11.88	.87	.39	47.28	.18	.58	38.28
68	5819	888686	24	27.58	34.18	148.18	168.88	.93	4.78	1.58	4.38	119.18	.44	1.38	.88
	2815	888618	15	28.18	33.48	139.88	159.68	.68	4.88	1.78	4.58	118.28	.68	1.48	.88
	5812	888628	19	29.78	38.88	139.58	168.28	.68	4.48	2.28	5.18	184.28	.68	1.48	.88

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 5

TC	MISSION	DATE	REC	B5A	B6A	B6N	B5N	B14A	E12A	B15A	B1A	E2A	B12A	E6A	E13A
63	1811	888689	19	19.88	21.48	.88	145.48	.68	4.98	.62	2.78	101.48	.33	1.38	.88
65	1818	888614	17	26.88	29.78	138.78	.88	.48	5.78	.88	2.78	85.18	.48	.94	.88
84	5819	888686	29	1.88	1.88	120.88	.88	.18	3.68	.87	.16	78.38	.18	1.28	.88
85	5812	88862A	E	1.28	1.48	119.18	129.88	.12	4.38	.89	.15	77.88	.11	1.28	.88
86	2315	888618	7	.58	.58	.88	.88	.18	4.48	.18	.13	78.78	.18	.88	.88
87	5819	888686	7	.89	.91	.88	.88	.18	3.78	.18	.28	66.88	.88	1.88	.88
	1818	888689	7	.81	.82	118.88	.88	.18	3.58	.86	.14	98.48	.18	.82	.88
	1818	888614	7	.88	.88	117.38	122.88	.11	4.78	.18	.13	45.88	.11	.92	.88
88	5828	888686	8	1.88	1.88	119.88	133.28	.88	4.88	.88	.28	48.88	.18	.85	.88
89	1811	888689	7	.62	.63	.88	.88	.18	3.28	.18	.15	46.88	.11	.68	.88
	3813	888611	7	.78	.78	117.88	.23	.18	3.88	.18	.13	57.88	.18	.88	.88
98	2886	888513	13	1.98	2.28	139.88	135.88	.15	18.98	.88	.48	63.28	.88	.18	27.88

SWITCH POSITION: 6

TC	MISSION	DATE	REC	B7N	B8N	B8A	B7A	B11A1	B11A2	B18N	B8N	B18A	B9A	B12N	B12A
7	5812	88862A	22	142.98	.88	3.18	3.98	1.98	2.18	143.88	.88	5.68	17.88	138.88	.88
8	1816	888519	17	143.18	141.18	4.48	5.88	2.78	7.88	142.28	154.88	5.68	7.88	135.88	.88
17	5814	888523	9	.88	137.88	1.78	1.78	.63	2.58	135.88	154.18	1.88	4.88	128.88	.88
	3814	888611	8	134.88	134.88	1.78	1.38	.55	.74	135.88	.88	1.68	7.88	125.88	.88
18	1818	888623	18	.88	.88	2.38	2.28	1.88	1.28	.88	.88	5.48	12.18	138.38	.88
19	2888	888586	8	142.88	141.88	5.88	5.88	1.28	5.88	.88	158.88	4.88	12.88	134.88	18.48
	1813	888519	8	.88	.88	3.88	3.88	1.88	4.88	.88	156.88	3.48	8.88	131.18	.88
	2782	888527	8	142.88	141.88	13.18	4.18	1.38	5.88	.88	152.98	4.38	4.18	134.98	.88
21	1816	888519	8	147.88	.88	5.88	8.88	3.88	9.88	142.28	156.88	7.88	17.78	138.38	.88
22	3813	888434	5	136.18	.98	2.88	3.18	.74	2.88	138.38	131.88	2.58	5.38	.88	.88
	4785	888581	6	.88	134.48	2.88	3.88	.78	3.88	131.88	.88	2.48	5.28	131.88	11.88

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITIONS: 6 I

YC	MISSION	DATE	REC	B7M	B8M	B8A	B7A	B11A1	B11A2	B10M	B9M	B10A	B9A	B12M	B12A
23	1812	888428	8	139.88	.88	2.48	4.38	1.18	4.88	131.88	.88	3.48	7.48	131.18	1.48
24	1812	888428	28	141.48	138.88	3.48	6.98	2.18	.88	.88	.88	5.58	12.38	136.88	17.88
	4786	888581	8	143.88	137.88	3.68	7.88	2.18	6.48	135.88	154.48	5.38	14.88	137.88	17.58
25	1812	888428	32	.88	.88	.88	.88	3.88	18.88	135.88	155.88	7.28	16.68	128.88	12.78
27	1811	888428	8	131.88	132.88	2.88	2.88	.98	.88	.88	147.88	2.48	3.88	125.88	.88
28	1811	888428	28	134.88	.88	2.28	3.88	1.88	6.88	.88	156.88	4.38	6.88	128.88	18.88
29	1811	888428	36	136.38	.88	3.18	4.88	1.88	5.78	128.68	152.58	4.38	9.48	122.88	9.88
68	5828	888686	14	.88	141.88	5.88	34.38	.99	.64	136.38	152.28	2.76	9.88	128.88	.88
66	1818	888618	19	.88	.88	5.48	31.38	2.18	2.88	138.88	154.38	4.48	16.88	132.48	.88
84	5819	888686	38	.88	136.88	1.88	1.78	.78	.98	135.28	145.88	2.88	7.88	128.36	.88
85	5812	888628	9	.88	136.88	2.18	1.88	.98	1.88	134.68	147.18	2.68	9.18	129.88	.88
86	2815	888618	8	.88	.88	1.48	1.28	.52	.78	131.88	.88	2.88	4.28	133.88	.88
87	5819	888686	8	.88	134.58	2.88	2.88	.78	.87	132.18	144.88	2.38	7.38	127.88	.88
	1818	888699	8	.88	134.88	1.98	1.78	.71	.89	132.88	145.88	2.48	9.88	131.68	.88
	1818	888616	8	.88	134.88	2.18	1.78	.84	1.88	132.88	147.28	2.88	9.48	131.58	.88
88	562P	888686	7	.88	132.88	2.88	2.88	.78	.62	128.68	148.88	2.48	7.58	128.58	.88
89	1811	888689	8	.88	132.88	1.58	1.48	1.88	.88	.88	144.88	2.88	7.88	138.58	.88
	3813	888611	8	.88	133.68	1.58	1.48	.18	.77	138.88	148.88	2.88	8.88	129.88	.88
98	2886	888513	14	148.88	148.88	2.48	3.88	1.88	3.98	.88	157.28	3.28	9.58	131.88	14.88

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITIONS: Y

TC	MISSION	DATE	REC	B13M	B14M	B14A	B13A	E7M	E12A	B16M	B15M	B16A	B15A	E11A	E13A
7	5812	888628	25	132.88	145.88	44.18	4.48	144.98	8.28	.88	.88	88.88	7.88	6.88	.88
8	1816	888519	18	147.88	146.88	14.88	32.88	129.88	24.48	178.88	135.88	49.88	9.88	5.48	.88
17	5814	888523	18	.88	.88	4.68	1.98	133.48	11.38	178.18	.88	48.48	2.68	2.88	.88
18	3814	888611	11	.88	.88	2.38	2.42	135.88	4.58	167.88	.88	58.48	3.88	4.88	.68
19	2888	888586	9	135.48	.88	3.88	12.88	141.88	28.88	178.28	.88	51.48	4.48	5.88	37.88
	1815	888519	9	138.28	.88	3.88	18.88	138.88	18.88	174.88	.88	58.88	4.88	4.88	.83
	2782	888527	9	133.88	139.88	3.18	4.48	143.88	21.48	175.18	136.28	68.83	5.28	4.78	.88
21	1816	888519	9	144.48	.88	4.88	18.88	134.88	34.88	152.48	133.88	27.58	8.88	8.78	.88
22	3813	888438	6	141.48	135.18	1.78	14.28	138.88	13.88	168.88	134.88	31.18	5.88	.88	.88
	4785	888581	7	148.88	.88	1.78	14.68	136.88	14.88	161.88	.88	29.88	3.78	3.88	23.88
23	1812	888428	9	139.18	135.88	1.88	16.48	141.88	16.88	.88	.88	39.88	4.48	3.53	34.18
24	1812	888428	21	142.28	132.88	2.58	11.88	144.88	21.88	154.28	.88	14.88	4.38	5.88	22.88
	4786	888581	9	144.88	134.88	3.28	12.88	141.88	22.88	158.88	133.88	18.88	4.48	5.58	22.38
25	1812	888428	33	142.88	146.88	3.68	8.78	139.88	17.88	158.88	134.88	13.88	5.18	3.98	68.88
27	1811	888428	9	137.88	132.88	5.88	18.88	134.88	9.88	155.88	.88	16.88	3.88	2.18	16.88
28	1811	888428	21	141.38	135.88	18.88	18.88	148.88	13.88	151.88	138.88	15.88	6.88	2.48	27.88
29	1811	888428	37	142.88	143.88	4.88	11.48	132.88	18.88	153.88	138.88	9.28	3.48	2.48	28.86
68	5828	888686	15	134.88	.88	4.68	2.68	133.88	4.48	169.28	.88	44.88	3.86	3.28	.88
84	5819	888586	31	.88	.88	4.58	1.88	133.88	3.78	.88	133.88	38.88	2.58	2.88	.88
86	2815	888618	9	.88	.88	1.18	1.58	138.88	3.58	159.28	.88	48.88	3.88	2.98	.88
87	5819	888686	9	.88	.88	2.38	2.68	138.88	5.88	166.88	125.88	45.38	3.88	3.58	.88
	1818	888689	9	.88	.88	2.38	2.38	136.48	3.98	163.18	124.28	38.18	2.98	3.18	.88
	1818	888616	9	.88	.88	2.48	1.58	136.88	4.88	164.58	132.58	48.88	3.88	3.58	.88
88	5826	888686	5	.88	.88	1.88	2.48	136.88	4.88	162.38	.88	59.48	3.88	2.68	.88
89	1811	888689	9	.88	.88	2.88	1.78	132.68	3.48	154.88	.88	35.68	2.58	2.88	.88
	3813	888611	9	.88	.88	2.88	1.58	132.88	3.38	.88	.88	39.88	2.38	2.58	.88
98	2886	888513	15	135.38	143.88	3.28	12.18	137.58	16.98	173.88	141.68	52.88	4.38	4.38	26.48

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITIONS: B

TC	MISSION	DATE	REC	C1M	C2M	C4M	C3M	C9M	C12M	C6M	C5M	C8M	C7M	C10M	C11M
17	5814	800523	11	127.00	127.10	.00	.00	128.10	130.00	128.00	126.00	.00	.00	128.50	.00
18	3814	800611	12	.00	128.00	.00	.00	127.00	118.50	125.00	125.00	.00	.00	127.00	.00
19	2808	800506	10	136.00	136.20	135.10	133.00	135.50	135.00	135.00	135.00	135.00	136.00	135.00	142.00
	1815	800519	10	131.00	.00	.00	.00	132.00	134.00	131.00	131.00	.00	.00	132.00	.00
	2702	800527	10	133.20	133.00	.00	.00	135.00	137.00	135.00	132.00	.00	.00	135.00	.00
21	1816	800519	11	133.00	140.00	.00	.00	141.00	141.20	139.00	139.00	.00	.00	140.20	.00
22	3813	800430	7	122.40	125.20	122.00	130.10	129.10	130.00	132.40	130.00	130.00	131.00	.00	.00
	4705	800501	8	125.00	127.00	123.00	130.00	130.00	126.50	132.00	130.00	130.00	132.00	130.00	140.00
	6702	800913	6	.00	.00	120.00	129.00	115.00	130.00	122.00	120.00	.00	132.00	130.00	130.00
	6704	800913	5	.00	132.50	121.50	126.00	117.00	136.00	122.00	130.00	130.00	131.00	131.50	131.00
23	1812	800428	10	127.00	.00	126.00	128.00	133.10	133.30	133.20	133.30	133.30	134.00	134.00	142.00
24	1812	800428	22	128.00	.00	129.00	130.00	130.00	139.00	130.00	137.20	130.00	130.00	137.00	147.00
	4706	800501	10	127.00	.00	125.00	133.00	137.00	.00	130.00	135.00	137.00	130.00	130.00	147.00
25	1812	800428	34	129.30	122.00	.00	132.00	140.10	143.00	140.30	140.40	141.30	142.10	141.00	151.00
27	1811	800428	10	120.00	.00	119.00	121.00	129.00	128.00	125.00	129.00	129.00	129.00	129.00	139.00
28	1811	800428	22	124.00	129.00	123.20	124.00	132.00	133.00	132.30	132.00	132.00	133.00	131.00	142.00
29	1811	800428	38	125.00	.20	.00	125.00	134.00	137.00	135.10	135.10	136.00	135.00	134.00	145.00
60	5820	800606	16	157.50	135.00	.00	.00	149.00	135.00	149.00	150.20	.00	.00	146.50	.00
84	5819	800606	32	128.00	128.20	.00	.00	128.40	128.00	126.00	127.00	.00	.00	128.00	.00
86	2815	800610	10	118.00	.00	.00	.00	123.50	116.50	122.00	123.00	.00	.00	126.00	.00
87	5819	800606	10	115.00	129.10	.00	.00	128.10	128.00	126.00	127.00	.00	.00	127.00	.00
	1810	800609	10	116.00	.00	.00	.00	127.40	119.90	125.00	126.10	.00	.00	128.00	.00
	1810	800616	10	115.00	121.50	.00	.00	128.00	118.50	125.00	125.90	.00	.00	128.00	.00
88	5820	800606	9	128.00	121.00	.00	.00	128.00	128.00	127.00	127.00	.00	.00	128.00	.00
89	1811	800609	10	115.50	119.00	.00	.00	124.00	116.00	124.00	124.00	.00	.00	126.00	.00
	3813	800611	12	.00	118.00	.00	.00	126.00	117.00	124.00	123.50	.00	.00	126.00	.00
93	2806	800513	16	129.00	131.30	.00	.00	131.00	133.90	130.20	130.50	.00	.00	131.50	140.00

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 9

TC	MISSION	DATE	REC	C17A	C18A	C19A	C24A	B4A	B6A	C20A	B1M	C21A	B4M	C22A	C23A
7	1818	888623	17	.80	1.23	.88	.88	1.68	1.45	1.38	142.78	1.58	148.98	1.56	.88
8	1816	888519	19	2.18	1.48	1.48	2.18	5.38	4.18	1.18	.88	1.28	142.18	1.63	.88
17	5814	888523	12	.67	.49	.48	1.88	2.38	2.88	.47	148.88	.48	.88	.68	.88
18	3814	888611	13	.36	.48	.37	.85	.68	1.88	.44	137.28	.41	134.88	.88	.88
19	2882	888586	11	2.18	1.48	1.48	2.28	7.88	3.38	1.88	.88	1.18	142.48	1.38	4.28
	1815	888519	11	1.18	.88	.98	1.58	3.18	3.38	.78	145.48	.88	148.88	1.88	.88
	2782	888527	11	1.78	1.18	1.18	2.38	5.28	3.98	.98	148.18	1.88	145.18	1.18	.88
21	1816	888519	12	3.88	2.68	2.88	3.68	7.88	6.38	2.88	154.88	2.88	150.88	2.28	.88
22	3813	888438	8	1.38	.88	.98	1.28	3.68	1.98	.52	.88	.68	138.28	.88	.88
	4785	888581	9	1.88	.88	.78	1.88	2.88	2.18	.58	.88	.58	138.38	.68	2.38
	3784	888917	2	.49	.51	1.28	.52	1.38	1.78	2.68	.88	1.88	.88	.26	.59
23	1812	888428	11	1.48	.58	1.85	1.48	4.28	2.88	.84	.88	.93	142.88	1.88	3.28
24	1812	888428	23	2.28	.88	1.58	1.68	5.88	2.58	1.28	149.48	1.38	145.28	1.48	4.88
	4786	888581	11	2.88	1.78	1.38	1.78	6.28	3.88	1.88	149.88	1.38	145.48	1.48	4.68
25	1812	888428	35	3.88	.88	2.18	2.88	7.88	5.38	1.78	152.48	2.88	149.28	2.88	6.78
27	1811	888428	11	.68	.48	.58	.68	2.88	1.48	.58	141.88	.58	136.88	5.88	4.38
28	1811	888428	23	1.88	1.88	.88	.88	3.38	1.58	.65	145.88	.73	148.18	.98	2.88
29	1811	888428	39	1.38	1.88	1.88	1.88	5.88	2.88	.83	149.88	.88	144.38	1.88	3.88
57	4823	888918	2	.57	.53	1.45	.58	1.78	2.88	3.78	128.88	1.88	.88	.23	.88
68	5828	888686	17	38.58	14.78	15.88	3.38	229.68	1.88	9.48	177.28	5.28	168.48	5.88	.88
	2815	888618	16	34.78	15.28	14.98	3.48	.88	1.38	9.18	.88	5.98	.88	5.	.88
84	5819	888686	33	.98	.56	.62	1.88	2.18	1.18	.55	142.48	.58	135.88	.73	.88
86	2815	888618	11	.38	.33	.27	.82	.22	.78	.37	.88	.32	.88	.48	.88
87	5[illegible]	888686	11	.70	.68	.68	1.88	2.38	.83	.54	142.18	.58	134.38	.67	.88
	1818	888689	11	.48	.48	.42	1.88	.79	.76	.48	.88	.48	136.48	.66	.88
	1618	888618	11	.42	.47	.48	1.18	1.18	.87	.47	137.58	.47	137.88	.78	.88
88	5828	888686	18	.88	.68	.68	.96	2.88	.78	.52	144.88	.49	134.88	.58	.88
89	1811	888688	11	.88	.48	.33	.88	.22	.78	.49	137.18	.48	.88	.88	.88
	3813	888611	11	.37	.48	.34	.78	.78	.78	.48	136.88	.48	135.88	.45	.88
98	2886	888513	17	1.28	.98	.98	1.68	4.88	3.56	.78	.88	.88	139.98	1.88	3.68

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 10

TC	MISSION	DATE	REC	D4A	D5A	D8A	D7A	D16A	D11A	D2A	D10A	D6A	D13A	D9A	D3A
7	1010	800623	10	.30	.40	.16	.11	.13	.60	.30	.11	.30	.12	.13	.00
17	5014	800523	13	.17	.16	.14	.00	.13	2.00	.20	.09	.20	.10	.12	.00
18	3014	800611	14	.00	.20	.12	.10	.10	.00	.15	.10	.15	.10	.11	.00
19	2008	800506	12	.40	.50	.20	.10	.30	.50	.50	.10	.40	.17	.14	1.30
	1015	800519	12	.30	.00	.15	.09	.20	2.10	.30	.10	.40	.14	.13	.00
	2702	800527	12	.45	.30	.17	.10	.20	.10	.40	.10	.57	.10	.16	.00
21	1016	800519	13	.70	.60	.20	.20	.50	2.00	.70	.17	.93	.30	.20	.00
22	3013	800430	9	.25	.33	.16	.10	.10	.32	.32	.10	.27	.13	.00	.00
	4705	800501	10	.20	.30	.13	.11	.17	.30	.30	.09	.24	.12	.11	.72
23	1012	800420	12	.40	.45	.15	.11	.25	.40	.42	.10	.37	.15	.13	1.10
24	1012	800420	24	.45	.60	.00	.14	.30	.40	.50	.12	.50	.20	.16	1.40
	4706	800501	12	.40	.60	.24	.14	.30	.40	.60	.12	.54	.20	.20	1.60
25	1012	800420	36	.00	.00	.10	.14	.32	.43	.50	.13	.00	.22	.17	1.70
27	1011	800420	12	.00	.30	.30	.10	.10	.20	.30	.00	.24	.12	.11	.70
28	1011	800420	24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	1011	800420	25	.00	.31	.16	.00	.10	.30	.35	.11	.27	.14	.13	.07
	1011	800420	26	.00	.32	.15	.00	.20	.30	.40	.10	.29	.15	.13	.05
29	1011	800420	48	.00	.43	.14	.00	.22	.30	.32	.09	.41	.15	.12	.00
80	1010	800600	15	2.90	2.65	.90	.94	3.50	.97	3.70	.00	4.30	1.27	.00	.00
	2015	800510	17	.00	.00	1.00	1.10	4.40	.74	4.20	1.20	5.50	1.60	1.00	.00
84	5010	800606	34	.16	.10	.14	.00	.12	.55	.10	.09	.10	.10	.12	.00
86	2015	800610	12	.00	.12	.12	.10	.10	.60	.13	.10	.12	.10	.12	.00
87	5010	800605	12	.00	.20	.15	.10	.12	.56	.20	.10	.20	.10	.13	.00
	1010	800603	12	.00	.15	.13	.00	.10	.55	.16	.00	.10	.10	.13	.00
	1012	800616	12	.00	.20	.12	.10	.11	.10	17	.10	.15	.11	.11	.00
88	5020	800606	11	.10	.17	.10	.00	.14	.00	.20	.07	.20	.00	.10	.00
89	1011	800609	12	.00	.20	.15	.00	.10	.50	.20	.11	.20	.11	.12	.00
	3013	800611	12	.13	.15	.14	.10	.10	.10	.15	.10	.16	.10	.11	.00
90	2006	800513	10	.30	.40	.20	.10	.20	.32	.40	.10	.30	.10	.10	1.10

TABLE B-1 (Continued)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITION: 11

TC	MISSION	DATE	REC	C25A	A49A	A50A	C27A	A45A	A46A	A51A	C26A	A52A	C28A	A47A	A48A
7	1818	888622	10	.00	.53	.72	1.10	.92	.62	.42	.35	.47	1.27	.90	.00
17	5814	888523	14	1.10	.30	.35	1.50	.40	1.40	.20	.00	.30	1.60	.60	.00
18	3814	888611	15	.40	.30	.38	.70	.42	.38	.23	.00	.36	1.10	.92	.00
19	2808	888586	13	5.00	.50	.70	8.00	2.00	5.00	.50	9.10	.60	4.40	3.00	4.40
	1815	888519	13	2.40	.00	.50	3.30	1.00	3.30	.40	.00	.50	3.90	2.00	.00
	2702	888527	13	3.50	.63	.67	4.30	1.60	4.60	.52	.02	.62	.35	2.60	.00
21	1816	888519	14	6.00	1.00	1.20	11.00	3.40	8.30	.90	.10	.90	7.00	5.00	.00
22	3813	888430	10	3.20	.33	.40	7.60	1.00	3.00	.31	3.40	.40	3.00	.90	.00
	4705	888501	11	1.00	.30	.40	7.00	1.00	3.00	.30	2.20	.35	2.00	1.50	2.00
23	1812	888428	13	2.50	.45	.60	9.30	1.40	4.00	.50	3.00	.40	3.00	2.10	4.20
24	1812	888428	25	3.70	.60	.70	14.00	2.10	5.00	.60	4.20	.63	4.10	3.10	5.00
	4706	888501	13	4.30	.00	.00	10.00	2.50	.00	.00	4.30	.00	4.00	3.00	7.00
25	1812	888428	37	4.00	.95	1.10	13.00	3.90	7.30	.00	5.10	.00	5.20	4.10	8.50
27	1811	888428	13	1.40	.27	.20	6.20	1.00	4.20	2.50	1.70	.25	1.50	1.30	3.10
28	1811	888428	27	2.00	.30	.37	7.30	1.10	5.00	.30	2.30	.30	2.10	1.70	4.00
	1811	888428	29	1.40	.20	.30	7.00	1.00	4.00	.30	.20	.30	.30	1.40	4.00
29	1811	888428	41	2.70	.51	.60	6.00	2.00	5.00	.50	3.60	.42	3.00	2.20	6.00
63	1810	888609	17	2.20	2.50	2.00	115.10	11.20	16.40	2.60	.00	2.00	124.00	23.20	.00
	2815	888610	10	.30	2.40	2.50	95.20	11.50	12.00	2.50	.00	2.50	142.90	20.40	.00
84	5819	888606	35	.95	.20	.30	2.00	.30	.37	.22	.00	.20	1.70		.00
86	2815	888610	13	.00	.17	.22	.91	.25	.40	.24	.00	.10	.00	.32	.00
87	5819	888606	13	1.60	.30	.30	1.70	.42	.50	.25	.00	.30	2.00	.50	.00
	1810	888609	13	.30	.27	.36	.60	.40	.35	.23	.00	.30	1.00	.52	.00
	1810	888610	13	.20	.29	.30	.70	.42	.51	.23	.10	.30	1.00	.53	.00
88	5820	888606	12	1.00	.30	.40	2.00	.50	.52	.25	.00	.27	2.00	.60	.00
89	1811	888609	13	.00	.20	.20	.70	.50	1.00	.20	.00	.20	1.00	.70	.00
	3813	888611	13	.50	.23	.30	.60	.42	.40	.20	.00	.25	1.00	.45	.00
93	2806	888513	19	2.60	.50	.60	3.10	1.10	3.50	.40	.00	.50	2.00	1.00	3.50

TABLE B-1 (Concluded)

OVERALL RMS LEVELS PRODUCED BY STABILIZED FLIGHT CONDITIONS LISTED IN TABLE 3

SWITCH POSITIONS: 12

TC	MISSION	DATE	REC	F2A	F3A	F5A	F4A	F17A	F13A	F14A	F8A	F16A	F15A	D14A	B12M
7	1810	800823	20	85.00	200.--	25.00	35.00	37.00	18.30	17.40	1.50	20.00	27.00	.30	.00
17	5814	800523	15	116.00	22.30	23.00	29.00	31.00	26.00	17.00	1.20	19.00	25.00	.10	.00
18	3814	800611	16	58.20	18.60	28.50	25.00	28.00	7.60	15.00	1.50	18.00	23.00	.12	.00
19	2808	800526	14	85.20	33.20	29.00	42.00	47.00	37.10	19.00	1.10	20.20	28.30	.20	144.10
	1815	800519	14	73.20	.00	28.00	38.00	43.30	37.00	19.00	1.10	19.40	26.30	.13	.00
	2702	800527	14	95.00	36.00	29.00	38.00	39.40	36.40	17.90	1.20	20.70	27.00	.17	.00
22	3813	800430	11	.00	.00	.00	.00	.00	25.30	.00	.65	.00	.00	.00	.00
	4705	800501	12	.00	5.00	.00	.00	.00	25.00	.00	.70	.00	.00	.10	140.10
23	1812	800428	14	64.40	11.30	27.00	35.30	45.30	35.90	14.10	.70	18.00	19.00	.13	143.10
24	1812	800428	26	71.00	11.00	36.00	33.00	49.00	23.00	14.20	.00	17.20	19.00	.19	144.00
	4706	800501	14	.00	.00	.00	.00	.00	23.00	.00	.05	.00	.00	.13	145.00
25	1812	800428	38	80.00	15.00	30.00	30.00	65.00	50.30	15.30	1.50	18.00	19.30	.19	138.00
27	1811	800428	14	42.70	10.40	24.50	22.50	32.60	23.00	15.30	.40	19.10	20.00	.10	135.00
	1811	800428	30	41.00	10.00	20.00	25.00	33.00	14.00	15.00	.40	16.00	18.00	.10	135.00
28	1811	800428	20	47.10	12.00	25.40	27.30	30.00	33.70	15.30	.50	18.20	20.00	.16	130.00
29	1911	800428	42	54.20	30.00	27.00	41.00	51.00	27.00	15.20	.70	20.00	.90	.12	132.00
60	1810	800609	10	100.00	20.70	30.00	30.30	30.00	8.40	19.00	2.00	21.10	29.20	.50	.00
64	5810	800606	36	6.44	10.00	10.40	24.10	20.20	5.90	15.10	1.20	17.00	19.30	.10	.00
66	2815	800610	14	81.50	22.20	20.20	26.50	29.00	5.20	.00	.92	10.00	23.00	.10	.00
67	5819	800606	14	30.00	17.00	21.00	24.30	30.30	7.00	10.00	.00	21.00	27.00	.10	.00
	1810	800609	14	40.30	10.00	19.20	27.00	33.40	7.00	17.90	.03	21.00	26.50	.10	.00
	1810	800616	14	43.70	20.00	15.00	22.70	32.90	8.20	10.20	1.00	20.70	27.00	.12	.00
68	5820	800606	13	45.00	10.00	10.00	20.20	34.00	7.90	17.90	.72	20.00	24.20	.00	.00
69	1811	800609	14	50.60	10.00	17.00	24.00	34.10	7.00	.90	.00	22.00	23.00	.11	.00
	3813	800611	14	64.00	16.00	.00	20.00	37.00	6.50	.00	.90	21.50	23.40	.10	.00
90	2806	800513	20	50.00	20.00	35.60	30.40	35.00	30.30	17.00	1.40	19.30	20.20	.15	141.90

TABLE B-2

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 1

TC	MISSION	DATE	REC	A1A	A2A	B1A	A29A	A28A	A42A	B1R	A18A	A27A	A32A	A3A	A4A
1	3812	080430	1	.38	.28	.48	.78	.09	2.48	115.28	.20	.08	.10	.08	.08
	4705	080501	1	.38	.26	.44	.61	.13	2.40	120.00	.20	.14	.10	.12	.45
	6702	080913	1	.38	.22	.36	.68	.25	.85	115.78	.17	.15	.16	.12	.15
	6704	080913	1	.16	.13	.22	.35	.10	.35	100.00	.08	.05	.13	.13	.08
2	1016	080519	32	.38	.35	.64	.62	.33	1.28	110.00	.35	.27	.42	.10	.08
4	1011	080420	2	.35	.33	.02	.35	.09	1.48	133.00	.38	.35	.46	.16	1.58
5	1012	080420	42	.38	.38	.48	.57	.24	1.38	120.48	.25	.23	.27	.16	1.01
	5019	080606	37	.58	.47	.56	.68	.48	.64	122.00	.48	.36	.43	.22	.00
	1011	080600	28	.41	.51	.56	.69	.37	1.35	130.38	.36	.38	.34	.21	.08
15	2702	080527	16	2.38	1.20	1.38	2.00	.36	19.56	.00	1.00	.45	.65	.92	.08
	5020	080606	20	2.20	1.10	1.20	2.20	.38	3.00	.00	.92	.36	.39	.01	.00
	1010	080600	22	2.38	1.00	1.38	2.00	.20	2.76	132.38	.01	.35	.38	.78	.00
	3013	080611	15	1.65	1.10	1.27	2.00	.31	3.12	131.00	1.10	.38	.44	.70	.00
18	1012	080420	30	1.60	.40	1.00	2.40	.40	.00	120.10	.70	.60	.55	.61	2.60
	3012	080430	8	1.10	.72	1.20	1.40	.26	10.00	120.00	.50	.00	.36	.00	.00
79	2906	080513	5	2.50	1.10	1.40	2.00	.70	24.00	131.00	1.30	.60	.90	1.60	0.50

SWITCH POSITION: 2

TC	MISSION	DATE	REC	A21A	A22A	A39A	A40A	A7A	A9A	A39A	A41A	A6A	A8A	A8A	E6A
1	3013	080430	1	.20	.12	.13	.21	.11	.52	.15	.30	.20	.41	.00	.00
	4706	080501	1	.17	.10	.10	.17	.00	.33	.14	.20	.10	.34	.10	1.40
	2008	080506	1	.20	.10	.10	.20	.10	.30	.10	.20	.10	.30	.20	.00
	5014	080523	1	.30	.20	.10	.22	.11	.62	.25	.25	.30	.50	.20	.00
	2702	080527	1	.10	.13	.15	.22	.10	.52	.24	.34	.25	.44	.13	.00
	3013	080611	1	.26	.15	.13	.26	.10	.12	.22	.30	.21	.42	.12	.00
2	4705	080501	21	.10	.12	.12	.20	.10	.63	.10	.17	.13	.46	.10	1.20
	2702	080527	21	.17	.09	.10	.20	.00	.41	.13	.20	.23	.42	.17	.00
	1012	080600	24	.52	.49	.20	.30	.15	.17	.36	.43	.23	.37	.10	.00
4	3013	080611	2	.42	.76	.45	.35	.62	1.37	.48	.37	.37	.30	.03	.00
	6702	080913	2	.62	1.03	.56	.73	.70	1.60	.75	.51	.36	.43	1.20	.40
	6704	080913	2	.36	.41	.47	.44	.30	.55	.54	.39	.30	.30	.40	.54

TABLE B-2 (Continued)

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT
FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 2

TC	MISSION	DATE	REC	A21A	A22A	A38A	A40A	A7A	A9A	A39A	A41A	A8A	A5A	A6A	E6A
5	1811	080428	43	.38	.34	.39	.46	.49	1.68	.49	.39	.32	.44	.58	3.68
	1812	080428	43	.48	.37	.33	.38	.38	1.62	.69	.38	.28	.58	.48	3.88
	3812	080438	14	.33	.34	.49	.47	.56	2.78	.42	.43	.88	.58	.88	.88
	5828	080686	24	.32	.53	.37	.42	.48	.58	.37	.48	.26	.44	.85	.88
	1818	080689	24	.27	.38	.37	.43	.41	.49	.37	.43	.38	.58	.46	.88
9	2782	080527	4	1.88	1.88	2.48	1.28	1.68	4.88	1.78	1.88	.83	1.28	1.38	.88
12	1816	080519	16	2.38	2.88	6.78	2.78	2.48	8.88	3.48	1.94	1.18	2.88	2.88	.88
14	1815	080519	15	2.98	.88	9.28	2.98	2.78	9.88	4.98	2.38	1.58	2.48	1.88	.88
	5819	080686	15	1.48	1.88	1.58	1.58	.88	.78	1.38	1.58	1.38	2.38	.88	.88
15	2782	080527	18	1.78	2.88	6.88	2.28	1.78	5.88	2.94	1.58	1.28	2.15	1.28	.88
	5828	080686	22	1.88	.78	1.88	1.88	.68	.52	.93	1.24	.96	1.94	.58	.88
	3813	080611	17	1.88	.72	1.38	1.28	.51	.54	1.88	1.29	1.88	1.94	.71	.88
16	3812	080438	18	1.18	1.28	2.88	2.98	.78	1.58	2.48	3.48	.88	1.28	.88	.88
79	2886	080513	6	2.88	1.28	7.48	2.68	2.48	5.88	3.18	2.18	1.48	2.38	1.88	5.18

SWITCH POSITION: 3

TC	MISSION	DATE	REC	A31A	A36A	B5A	B2A	A43A	A44A	B3W	B2W	A34A	A36A	A35A	E6A
1	1811	080428	1	.17	.86	.41	.72	.12	.31	123.98	138.28	.11	.21	.89	1.53
2	1812	080428	44	.28	.18	.44	.71	.16	.33	120.68	128.48	.17	.23	.17	1.28
	3813	080436	21	.17	.85	.44	.61	.12	.24	121.88	128.88	.16	.28	.88	.88
	4786	080581	23	.24	.18	.38	1.88	.28	.78	120.86	125.88	.22	.48	.28	1.18
	2886	080536	24	.14	.85	.38	.69	.18	.24	117.88	138.88	.18	.15	.18	1.88
	3813	080611	28	.28	.86	.34	.58	.28	.78	118.88	127.38	.19	.22	.17	.88
4	3812	080436	2	.48	.38	.58	1.98	.58	2.38	128.89	146.88	.88	.88	.88	.88
	5814	080523	2	.38	.38	.79	3.88	.32	1.58	125.88	145.88	.38	.58	.38	.88
	2782	080527	2	.32	.26	.58	2.58	.34	1.88	128.88	148.88	.34	.37	.31	.88
5	1818	080519	31	.39	.28	.42	.78	.31	1.18	122.88	141.88	.33	.48	.34	.88
	2782	080527	28	.38	.28	.48	2.88	.28	1.88	128.88	148.88	.38	.38	.28	.88
	3813	080611	28	.39	.27	.39	.75	.38	.48	121.88	127.38	.35	.45	.35	.88
14	1815	080519	17	1.78	.88	10.88	.88	.81	4.78	.88	141.88	1.88	1.88	1.88	.88
	5819	080686	17	1.88	1.88	8.98	5.88	.88	1.18	.88	.88	.88	.78	.88	.88
15	5812	080436	12	1.63	2.48	7.38	33.48	.68	3.38	131.88	159.48	.88	.82	.98	.88
16	2888	080586	19	.76	.85	3.38	18.88	.43	2.88	132.88	156.78	.38	.88	.88	3.48
79	2886	080513	8	1.28	1.88	8.98	51.88	.78	3.88	144.88	168.88	.88	.88	1.88	4.48

TABLE B-2 (Continued)

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 4

TC	MISSION	DATE	REC	A11A	A12A	A37A	A33A	A19A	A16A	A13S	A19A	A14A	A28A	A18A	E6A
1	3814	800611	1	.16	.46	.39	.05	.14	.14	.15	.21	.13	.13	.24	.00
2	1811	800428	44	.00	.32	.20	.04	.11	.41	.00	.15	.11	.22	.11	.02
	3812	800430	15	.00	.30	.21	.10	.12	.44	.10	.15	.00	.15	.00	.00
4	3813	800430	2	.31	.36	.40	.04	.32	1.20	.40	.30	.30	.30	.00	.00
	1815	800510	2	.16	.00	.30	.02	.30	1.20	.30	.40	.20	.20	.20	.00
	3814	800611	2	.20	.42	.30	.03	.30	.34	.33	.30	.20	.25	.25	.00
12	2702	800527	15	3.70	9.80	6.20	.25	7.80	16.00	5.60	3.90	.77	.54	2.60	.00
14	5814	800523	16	2.60	9.70	9.60	.30	8.00	28.50	5.30	3.10	.70	.60	2.40	.00
	1811	800609	24	2.34	5.40	2.90	.19	1.70	1.30	1.00	.80	.24	.29	.09	.00
	5812	800628	24	2.30	4.90	2.60	.19	2.20	1.60	.95	.95	.25	.24	.96	.00
15	3813	800430	12	2.20	7.10	4.90	.27	5.90	9.70	4.40	2.90	.50	.37	.00	.00
16	2808	800506	21	1.00	4.60	2.40	.21	1.50	4.30	2.00	1.00	.23	.23	.00	3.30
79	3814	800611	9	.49	.71	.34	.04	.42	.32	.25	.30	.13	.17	.10	.00

SWITCH POSITION: 5

TC	MISSION	DATE	REC	B6A	B6A	B5M	B5M	D14A	E12A	D15A	D1A	E2A	D12A	E6A	E13A
1	2815	800610	1	.00	.91	117.40	129.70	.13	1.10	.07	.16	21.90	.14	.04	.00
4	4705	800501	2	.70	1.42	130.00	130.00	.10	30.00	.00	.20	.00	.10	.03	6.42
	4705	800501	3	.50	.62	.00	140.00	.24	22.10	.12	.17	.30	.20	1.00	20.70
6	3813	800430	20	1.94	2.03	131.00	133.60	.01	14.50	.34	.36	.00	.30	.00	.00
	2806	800513	25	1.70	1.20	127.40	127.00	.70	11.70	.20	.30	111.70	.30	1.00	9.70
	6702	800913	13	1.67	1.16	128.70	130.00	.70	5.00	.20	.31	117.10	.37	.47	5.90
	6704	800913	11	1.70	1.20	131.50	134.70	.66	4.00	.31	.31	77.00	.30	.30	7.40
12	4706	800501	15	5.70	6.00	142.00	143.00	.00	44.40	.40	.90	.00	.40	3.00	33.00
14	2808	800506	17	7.60	8.60	.00	143.00	.50	33.90	.30	1.00	118.50	.36	2.00	51.40
	5814	800523	18	7.20	7.90	.00	143.60	.24	31.70	.25	.01	87.00	.20	2.00	.00
	1811	800609	26	7.00	7.20	127.00	143.00	.27	11.20	.16	.47	80.30	.10	2.11	.00
15	6702	800913	7	7.40	8.00	.00	.00	.16	8.00	.40	.97	84.30	.14	.77	19.60
	6704	800913	6	7.00	8.10	.00	.00	.20	6.00	.15	.60	78.00	.14	.60	20.20
16	1815	800510	19	3.00	.00	.00	130.20	.13	11.20	.00	.35	78.40	.14	.05	.00
	1811	800609	22	2.60	4.20	125.00	140.10	.12	3.00	.00	.22	83.30	.10	.70	.00
	3813	800611	20	3.20	4.60	124.00	.00	.11	3.50	.00	.25	69.40	.11	.05	.00
79	3812	800430	6	.70	6.30	144.40	140.00	.30	33.00	.20	.50	.00	.23	.00	.00

TABLE B-2 (Continued)

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 6

TC	MISSION	DATE	REC	B7M	B8M	B8A	B7A	B11A1	B11A2	B10M	B9M	B10A	B9A	B12M	B12A
1	1818	800618	1	133.10	127.00	.30	1.30	.22	.29	126.00	134.50	.50	.31	123.50	.00
	1818	800623	1	134.70	131.00	.47	1.05	.25	.34	128.00	136.50	.96	.62	125.00	.00
4	4786	800501	2	136.20	134.30	2.40	2.50	3.00	3.50	136.00	152.00	8.90	5.30	141.60	30.00
	1818	800618	2	132.20	136.00	2.00	2.20	2.76	3.40	136.10	153.90	8.90	7.60	140.10	.00
	1818	800623	2	137.40	.00	2.03	2.42	3.27	3.20	136.00	149.40	9.60	6.70	140.30	.00
5	4785	800501	20	135.60	127.00	1.53	2.53	.50	2.00	130.00	140.00	1.40	3.30	127.20	9.73
	2815	800618	21	131.00	127.00	.23	1.40	.12	.20	.00	.00	.33	.19	120.00	.00
9	1816	800519	20	140.90	144.50	10.10	6.70	6.70	19.40	140.40	160.50	14.40	14.00	130.40	.00
12	3813	800611	25	147.50	147.50	5.40	8.70	3.00	.00	156.00	160.00	9.00	24.00	145.00	.00
14	4785	800501	15	150.00	.00	5.70	13.20	3.20	10.00	144.00	150.00	8.60	22.00	130.00	32.00
16	1815	800519	21	136.20	.00	3.00	5.00	1.60	.00	132.00	152.00	4.00	10.00	120.00	.00
	5814	800523	20	136.30	136.00	3.20	4.10	1.90	6.10	132.20	152.10	5.60	11.30	127.70	.00
79	3814	800611	10	.00	.00	3.90	1.50	.07	.90	130.00	.00	2.00	11.60	130.00	.00

SWITCH POSITION: 7

TC	MISSION	DATE	REC	B13M	B14M	B14A	B13A	E7M	E12A	B16M	B15M	B16A	B15A	E11A	E13A
1	1815	800519	1	114.00	.00	.13	.10	110.60	3.00	131.00	121.00	.40	.00	.40	.00
2	1818	800618	24	115.00	110.00	.26	.32	120.00	1.10	131.00	121.00	1.00	1.00	1.00	.00
	1818	800623	22	129.00	.00	2.20	2.90	132.40	3.50	140.00	133.00	7.40	5.90	1.00	.00
	6782	800913	14	127.50	120.00	.79	.73	120.10	.92	134.00	120.70	.37	.34	.43	.36
	6784	800913	12	123.00	124.00	.70	.50	122.50	.70	135.00	122.00	.50	.50	.93	.00
4	1816	800519	2	135.00	140.00	2.00	2.00	120.00	23.40	162.00	144.00	10.00	8.00	9.00	.00
5	4786	800501	22	138.60	143.00	1.71	4.00	127.70	16.00	162.00	146.60	7.50	5.00	3.90	20.00
	1818	800623	21	120.00	135.00	2.20	3.40	133.00	6.70	.00	143.60	9.60	4.70	3.90	.00
9	1816	800519	21	150.20	160.00	121.40	46.50	130.00	36.10	170.50	143.90	60.90	31.20	6.70	.00
12	3813	800611	26	123.00	.50	5.60	1.70	133.00	5.00	160.00	.00	24.30	2.00	4.40	.00
	3813	800611	27	144.90	150.00	6.20	10.70	140.10	15.20	170.00	152.60	66.00	11.10	8.90	.00
14	4785	800501	10	144.00	146.00	5.70	23.00	145.00	34.30	177.00	149.00	64.00	7.60	8.13	40.00
	2388	800506	15	140.90	145.60	4.90	36.10	144.00	36.10	170.60	.00	63.60	8.15	8.03	51.00

TABLE B-2 (Continued)

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT
FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 7

TC	MISSION	DATE	REC	B13M	B14M	B14A	B13A	E7M	E12A	B16M	B15M	B16A	B15A	E11A	E13A
15	4785	888581	13	.00	.00	5.00	22.30	141.40	18.40	173.20	.00	47.10	6.23	5.40	50.00
	4786	888581	16	.00	.00	4.00	21.30	140.00	19.10	174.60	.00	45.40	7.00	3.00	42.00
16	1811	888680	20	.00	.00	9.00	11.40	136.00	4.20	155.40	.00	39.10	9.20	3.00	.00
	6782	888913	10	124.10	125.50	.54	.40	139.84	4.30	161.40	.00	34.90	9.30	3.30	22.90
	6784	888913	9	125.10	126.60	.52	.55	138.50	3.90	160.20	.00	32.00	11.40	2.70	28.30
79	3812	888438	7	150.00	146.00	4.00	53.00	140.30	33.10	174.00	.00	.00	8.00	.00	.00
	2886	888513	4	146.60	146.70	4.10	26.90	147.90	42.90	166.00	.00	92.70	10.20	9.30	.00

SWITCH POSITION: 8

TC	MISSION	DATE	REC	C1M	C2M	C4M	C3M	C8M	C12M	C5M	C5M	C8M	C7M	C10M	C11M
2	1815	888519	24	120.00	.00	.00	.00	114.00	120.00	114.00	110.00	.00	.00	115.00	.00
38	3813	888438	15	160.70	155.00	152.60	157.00	164.00	.00	167.00	149.00	163.00	167.00	.00	.00
	4785	888581	16	155.00	155.00	153.00	160.00	162.10	.00	165.00	157.30	162.00	166.00	165.00	.00
	2888	888586	16	144.00	145.00	145.00	147.00	152.40	152.30	150.60	147.60	153.00	157.10	157.30	164.00
	1815	888519	16	154.00	.00	.00	.00	159.00	160.20	160.00	155.00	.00	.00	165.00	.00
	5814	888523	17	152.00	153.70	.00	.50	157.00	165.00	160.00	155.00	.00	.00	163.60	.00
	5819	888686	16	146.20	136.00	.00	.00	153.50	148.40	157.00	149.40	.00	.00	156.00	.00
	1811	888680	25	157.00	136.00	.00	.00	160.00	158.50	167.00	150.00	.00	.00	157.00	.00
	1818	888623	12	160.10	156.00	.00	.00	164.10	153.70	152.10	160.50	.00	.00	150.00	.00
39	3812	888438	13	146.30	150.00	153.00	156.00	161.00	.00	161.00	157.00	.00	164.00	.00	.00
	4786	888581	17	147.10	144.20	150.00	154.40	161.70	.00	164.40	155.00	161.50	163.70	163.20	.00
	2886	888513	22	138.00	.00	.00	.00	155.00	154.40	159.60	152.00	.00	.00	163.30	167.10
	1816	888519	30	138.50	140.00	.00	.00	157.60	162.70	156.00	153.00	.00	.00	160.00	.00
	2782	888527	17	137.00	140.00	.00	.00	158.00	162.00	157.00	153.00	.00	.00	164.00	.00
	5820	888686	21	137.00	126.00	.00	.00	160.40	152.00	162.00	150.00	.00	.00	162.00	.00
	1818	888680	23	144.00	127.00	.00	.00	161.50	152.90	161.00	150.70	.00	.00	.00	.00
	3813	888811	16	140.00	120.00	.00	.00	155.00	152.00	162.00	161.30	.00	.00	150.50	.00
	6782	888913	8	142.20	155.60	149.10	156.00	160.40	165.20	151.00	155.10	162.10	166.00	161.20	166.20
	6784	888913	7	143.00	157.50	150.00	157.00	151.00	163.50	.00	155.00	159.10	154.50	150.30	162.00
	3784	888917	5	.00	153.00	146.00	153.00	161.00	164.50	.00	152.00	159.00	162.20	157.00	165.00
48	3812	888438	9	144.00	135.00	142.00	145.00	156.70	161.00	150.00	151.00	.00	162.00	.00	.00
	4786	888581	19	140.00	140.00	145.00	143.00	156.30	.00	157.00	153.00	156.40	161.70	156.00	171.00
	2888	888586	28	146.00	145.00	140.00	152.00	158.00	153.00	157.00	157.00	160.00	160.00	160.00	165.00
	1815	888519	28	134.00	.00	.00	.00	151.30	157.00	152.00	150.00	.00	.00	155.00	.00
	5814	888523	21	134.00	140.00	.00	.00	154.00	157.00	153.40	150.00	.00	.00	157.00	.00
	1811	888680	21	143.00	.00	.00	.00	158.00	154.00	163.00	150.00	.00	.00	143.00	.00
	3813	888611	21	144.00	132.00	.00	.00	167.00	140.00	150.00	157.00	.00	.00	152.00	.00
	1818	888623	16	144.00	147.00	.00	.00	160.10	152.50	145.00	157.50	.00	.00	150.00	.00
	6782	888913	11	139.00	150.50	143.30	140.90	160.00	162.40	144.00	150.00	159.60	164.60	150.20	160.00
	6784	888913	10	145.00	150.00	145.00	154.00	152.30	160.00	147.00	154.00	157.00	167.00	153.00	160.00
	3784	888917	9	140.00	.00	130.00	150.00	155.00	160.00	.00	150.00	154.00	157.00	152.00	160.30

TABLE B-2 (Continued)

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT
FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 8

TC	MISSION	DATE	REC	C1M	C2M	C4M	C3M	C9M	C12M	C6M	C5M	C8M	C7M	C10M	C11M
42	3813	888430	19	143.00	137.00	134.00	143.00	142.00	.00	144.00	142.00	140.00	144.00	.00	.00
	4785	888501	19	142.40	142.40	138.00	144.00	141.00	.00	143.40	141.00	143.40	144.60	144.00	154.00
48	1312	888428	49	127.00	125.00	127.00	127.00	138.00	140.00	137.00	137.00	138.00	139.00	138.00	147.00

SWITCH POSITION: 9

TC	MISSION	DATE	REC	C17A	C18A	C19A	C24A	B4A	E6A	C20A	E1M	C21A	B4M	C22A	C23A
1	1816	888519	1	.36	.20	.35	.61	.58	.38	.30	130.00	.36	130.00	1.60	.60
	1811	888609	1	.51	.25	.29	.68	.53	.60	.33	130.10	.29	110.00	1.00	.00
	5812	888628	1	.34	.22	.28	.66	.99	.38	.37	134.20	.27	.00	.69	.00
	5812	888628	2	.41	.26	.19	.54	.91	.35	.21	132.30	.21	.00	.53	.00
4	1811	888609	2	1.10	.39	.36	.84	.81	1.12	.27	140.00	.32	121.30	.83	.00
	5812	888628	3	1.70	.53	.48	.72	1.90	1.30	.54	132.30	.40	132.30	.50	.00
	3704	888917	1	.73	.40	1.00	.67	1.20	2.30	4.00	124.10	1.70	130.00	.20	.74
	4823	888918	1	.80	.40	1.90	.85	1.50	3.00	4.90	124.30	1.80	135.70	.27	.77
5	4823	888918	5	.64	.29	1.14	.45	1.60	1.90	3.00	122.90	1.20	129.00	.32	.72
9	1816	888519	22	2.20	1.73	1.71	3.50	5.20	4.40	1.60	.60	1.80	144.00	1.99	.00
12	5812	888628	25	2.90	1.90	2.00	3.70	3.90	3.70	3.00	133.00	2.80	145.00	2.50	.00
15	2806	888513	21	2.30	1.70	1.80	2.40	11.00	3.70	1.20	.00	1.60	149.00	1.90	6.20
18	3813	888611	19	.91	.90	.82	2.70	1.10	.90	.90	140.00	.93	141.00	1.00	.00
38	3813	888430	17	6.00	5.00	8.60	8.00	12.00	6.20	5.40	150.00	6.00	142.50	.00	.00
	4785	888501	17	6.90	7.60	8.10	7.97	12.00	10.00	6.00	156.30	8.15	155.10	9.03	.40
	2808	888506	18	6.01	6.50	7.00	8.60	14.00	8.00	8.20	157.40	7.20	153.00	8.70	26.00
	1815	888519	18	4.90	.00	5.00	9.00	10.00	9.00	6.00	156.70	7.70	153.90	5.70	.00
	5814	888523	19	4.30	5.00	5.00	8.90	10.30	8.50	5.90	156.00	5.60	153.00	5.00	.00
	5819	888606	18	2.10	2.50	2.90	4.60	3.40	2.40	5.00	145.00	3.50	139.00	3.10	.00
	1811	888609	27	2.30	4.00	4.30	9.00	.00	2.30	4.40	.00	5.00	.00	5.00	.00
	1816	888623	14	3.80	5.00	6.00	9.50	3.50	3.00	6.00	140.00	8.20	147.00	6.40	.00
39	3813	888430	13	4.40	5.00	7.10	8.20	13.00	5.00	4.70	155.00	5.10	140.00	.00	.00
	4785	888501	14	4.20	4.80	7.20	7.30	9.80	4.70	4.80	151.00	5.50	155.00	5.00	16.70
	2782	888527	19	5.00	5.00	6.00	7.00	10.10	8.60	4.20	155.00	5.00	150.00	5.00	.00
	5322	888606	23	3.20	4.70	5.30	5.20	7.00	1.50	5.00	157.70	5.20	143.50	4.70	.00
	3213	888611	18	2.00	3.20	3.60	8.00	2.40	1.40	3.00	145.00	.00	144.00	.00	.00

TABLE B-2 (Continued)

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT
FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 9

TC	MISSION	DATE	REC	C17A	C18A	C19A	C24A	B4A	E6A	C20A	E1N	C21A	B4H	C22A	C23A
48	3812	888438	11	2.88	1.88	4.89	8.88	8.88	3.88	3.88	151.88	.88	146.88	.88	.88
	4786	888581	21	2.48	4.88	4.88	6.78	5.18	4.88	3.88	150.88	4.88	145.88	3.98	10.88
	2886	888586	22	4.88	5.88	5.88	8.88	18.98	4.88	5.88	152.48	5.88	147.88	5.58	15.88
	1815	888519	22	2.88	.88	3.48	5.88	6.88	3.88	3.38	152.68	3.38	145.88	2.89	.88
	1811	888686	23	1.18	2.88	2.88	7.18	.88	.88	3.88	.88	4.28	.88	4.88	.88
	3813	888611	19	1.43	2.68	3.15	7.88	1.89	1.85	3.38	141.68	4.28	142.68	3.68	.88
58	2886	888513	24	4.88	4.88	5.88	8.88	18.88	5.88	4.88	155.28	4.38	148.88	4.88	11.88
51	3784	888917	4	2.28	2.88	4.88	2.88	4.88	7.18	14.18	123.88	7.48	149.88	.33	3.38
	3784	888917	6	4.88	9.18	8.38	4.88	8.98	14.68	29.68	125.18	11.88	158.38	.83	9.28
53	3784	888917	8	1.58	2.38	3.28	1.28	.88	4.88	6.18	122.88	4.28	146.88	.38	1.38
55	4823	888918	3	.81	.91	2.88	.77	3.78	3.28	6.78	126.18	2.98	143.38	.26	.81
86	4823	888918	4	3.68	3.38	6.28	2.98	11.38	18.48	27.48	124.98	8.28	151.56	.41	3.58
79	5812	888628	11	1.14	1.48	1.38	2.68	1.98	1.88	1.38	146.88	1.68	143.68	2.88	.88
	5812	888628	12	1.38	1.68	1.68	4.88	2.48	2.88	1.98	146.88	2.78	146.58	2.38	.28

SWITCH POSITION: 18

TC	MISSION	DATE	REC	D4A	D6A	D8A	D7A	D16A	D11A	D2A	D18A	D6A	D13A	D9A	D3A
1	1818	888689	1	.17	.21	.15	.89	.89	.88	.17	.11	.38	.88	.12	.88
4	2886	888513	3	.22	.24	.25	.23	.24	.49	.36	.26	.18	.23	.27	.79
	1818	888689	2	.26	.19	.35	.33	.28	.68	.45	.28	.28	.27	.26	.88
	2815	888618	2	.26	.28	.39	.33	.27	.66	.43	.28	.32	.27	.25	.88
5	1815	888519	23	.28	.88	.37	.38	.31	2.58	.32	.34	.24	.38	.21	.88
13	1816	888519	26	.48	.42	.21	.19	.38	2.48	.81	.14	.68	.28	.29	.88
14	3813	888438	14	1.26	1.45	.59	.49	.88	1.42	1.28	.29	1.88	.47	.88	.88
	1818	888623	11	.72	.96	.24	.25	.25	.99	.49	.17	.86	.31	.22	.88
16	4786	888581	18	.35	.46	.18	.14	.25	.48	.42	.13	.48	.28	.18	1.88
58	2886	888513	25	.68	.88	.23	.18	.24	.47	.68	.18	.68	.28	.17	1.88
79	5812	888628	16	.86	.76	.24	.22	.23	.69	.48	.15	.75	.21	.26	.88

TABLE B-2 (Concluded)

PEAK OR MAXIMUM RMS LEVELS PRODUCED BY TRANSIENT FLIGHT CONDITIONS LISTED IN TABLE 4

SWITCH POSITION: 11

TC	MISSION	DATE	REC	C25A	A49A	A50A	C27A	A45A	A46A	A51A	C26A	A52A	C28A	A47A	A48A
2	2006	000513	26	.43	.00	.16	.40	.00	2.00	.10	.00	.10	.00	.50	2.00
4	5020	000606	1	.73	.17	.22	4.30	.67	1.43	.14	.60	.14	1.60	.00	.00
8	2008	000506	25	.60	.10	.20	2.00	.40	4.00	.10	.00	.20	.02	.50	2.00
13	1016	000519	27	3.90	.69	.87	5.30	3.00	5.20	.50	.00	.60	4.50	3.00	.00
14	3013	000430	16	9.50	1.30	1.52	29.70	4.77	12.30	1.10	10.30	1.10	9.30	.00	.00
	1010	000623	13	.00	1.10	1.40	.00	2.81	.00	.02	.00	.00	6.10	2.50	.00
15	1016	000519	29	6.00	.97	1.20	12.10	3.60	8.90	.00	.00	.75	8.70	4.00	.00
16	4706	000501	20	3.10	.59	.76	8.20	2.50	8.50	.54	3.30	.40	3.00	2.50	7.00
79	5012	000620	13	.00	.07	1.13	2.40	2.20	1.20	.73	.00	.76	3.30	2.10	.00

SWITCH POSITION: 12

TC	MISSION	DATE	REC	E2A	E3A	E6A	E4A	E17A	E13A	E14A	E8A	E16A	E15A	D14A	B12W
1	2006	000513	2	11.50	7.00	.00	6.20	15.00	1.00	11.20	.00	11.00	12.50	.26	126.60
	5019	000606	1	20.00	14.50	9.20	18.90	21.50	.36	13.40	.50	15.00	13.60	.16	.00
2	5014	000523	22	15.00	10.00	10.00	10.00	10.00	2.00	13.00	.40	12.00	13.00	.40	.00
	5012	000620	27	12.90	7.60	9.50	9.50	17.50	.32	10.90	.33	11.90	15.10	.20	.00
4	2008	000506	2	70.00	30.50	40.00	43.00	30.00	17.90	22.00	1.00	20.00	31.00	.50	151.70
	5019	000606	2	99.00	27.90	20.60	41.00	51.00	5.00	20.00	1.10	23.00	30.10	.40	.00
8	5014	000523	22	01.30	24.40	24.70	33.00	35.50	12.00	16.50	1.00	10.70	20.00	.93	.00
	5012	000620	26	90.00	22.00	23.30	29.00	20.30	7.10	14.00	1.60	16.60	21.10	.60	.00
13	1016	000519	20	100.00	37.30	34.90	47.30	42.50	50.00	20.70	1.30	20.70	20.00	.20	.00
14	3013	000430	10	.00	.00	.00	.00	.00	60.00	.00	.00	.00	.00	.00	.00
15	1016	000519	10	50.40	.00	36.40	39.00	47.30	37.23	19.00	2.00	22.10	27.10	.30	.00
16	1010	000623	15	70.40	22.70	30.70	32.60	36.20	21.20	20.30	1.10	23.60	20.90	.15	.00
79	5012	000620	10	100.00	36.50	29.40	30.50	57.60	75.00	20.20	2.70	25.70	31.90	.27	.00

APPENDIX C

SAMPLE LISTINGS OF TEMPERATURES, FLIGHT PARAMETERS AND OTHER PDAS DATA

TABLE C-1

LIST OF SIGNAL INPUTS TO PDAS

Abbreviation	Signal Description
STABL	Horizontal Stabilator Left
STABR	Horizontal Stabilator Right
PITCH	Pitch
RUD POS	Rudder Position
ROLL	Roll
PITCH R	Pitch Rate
MACH	Mach Number
EPR L	Engine Pressure Ratio, Left
FUEL	Total Fuel
ALT	Altitude
ASP	Airspeed
EPR R	Engine Pressure Ratio, Right
HDG	Heading
SS ANG	Sideslip Angle
A/ATT	Angle of Attack
N2R	N2 Right-Engine Spool Speed
N2L	N2 Left-Engine Spool Speed
YAW R	Yaw Rate
AY	Lateral Acceleration - Ay
RAM T	Ram Air Temperature
RAT	Ram Air Turbine Excitation
ROLL R	Roll Rate
AZ	Vertical Acceleration c.g. - Az
SENSE 8B	Air Flow Sensor Temperature 2B
FLOW 8B	Air Flow Rate 10/20
DIF PR	Differential Pressure - Never Used
GAIN 1 thru GAIN 12	Gain of AGC Amplifiers 1 thru 12
HUM	Relative Humidity
SENSE HUM	Relative Humidity Temperature
ABS PR	Absolute Pressure in Equipment Bay
SENS F 18	Air Flow Sensor Temperature 1B
TC1 thru TC15	Thermocouples Numbers 1 thru 15
FLOW F18	Air Flow Rate 9/14
EVENT	Weapons Switch Off and Weapons Release
F FLOW R	Fuel Flow, Right
F FLOW L	Fuel Flow, Left
STEP	Switch Position
ACCEL 1 thru 15	Flutter Accelerometers 1 thru 15
R ST	Roll, Stick Position
P ST	Pitch, Stick Position
IN DAMP	Inboard Damper - Not Used
C DAMP	Center Damper - Not Used
IN SPOIL	Inboard Spoiler
OUT SPOIL	Outboard Spoiler
PED POS	Rudder Pedal Position
WNG SWP DEG	Wing Sweep Degrees

TABLE C-2. SAMPLE LISTING OF TYPICAL TEMPERATURE DATA

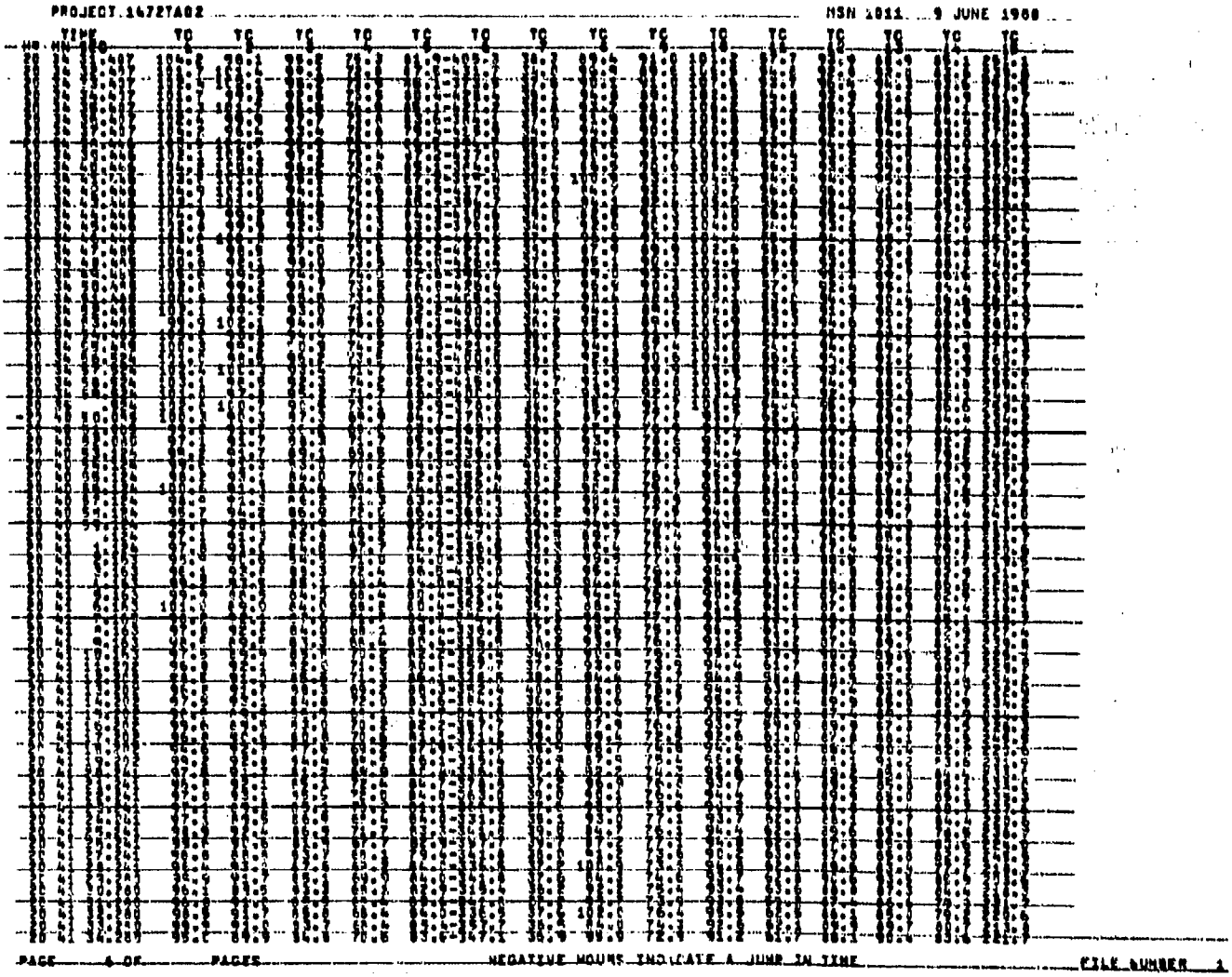


TABLE C-3. SAMPLE LISTING OF TYPICAL FLIGHT PARAMETER DATA

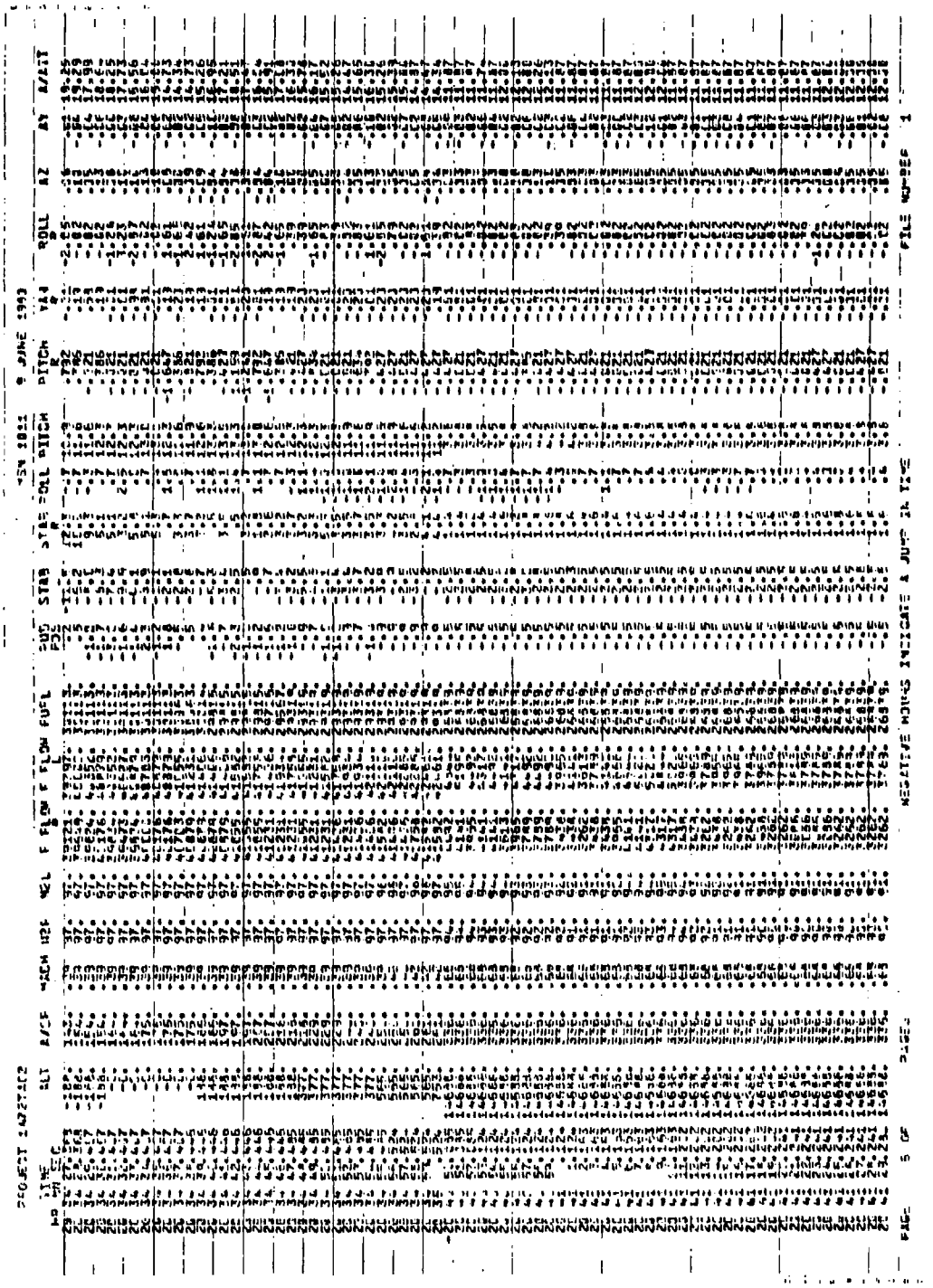


TABLE C-3 (Cont). SAMPLE LISTING OF TYPICAL FLIGHT PARAMETER DATA

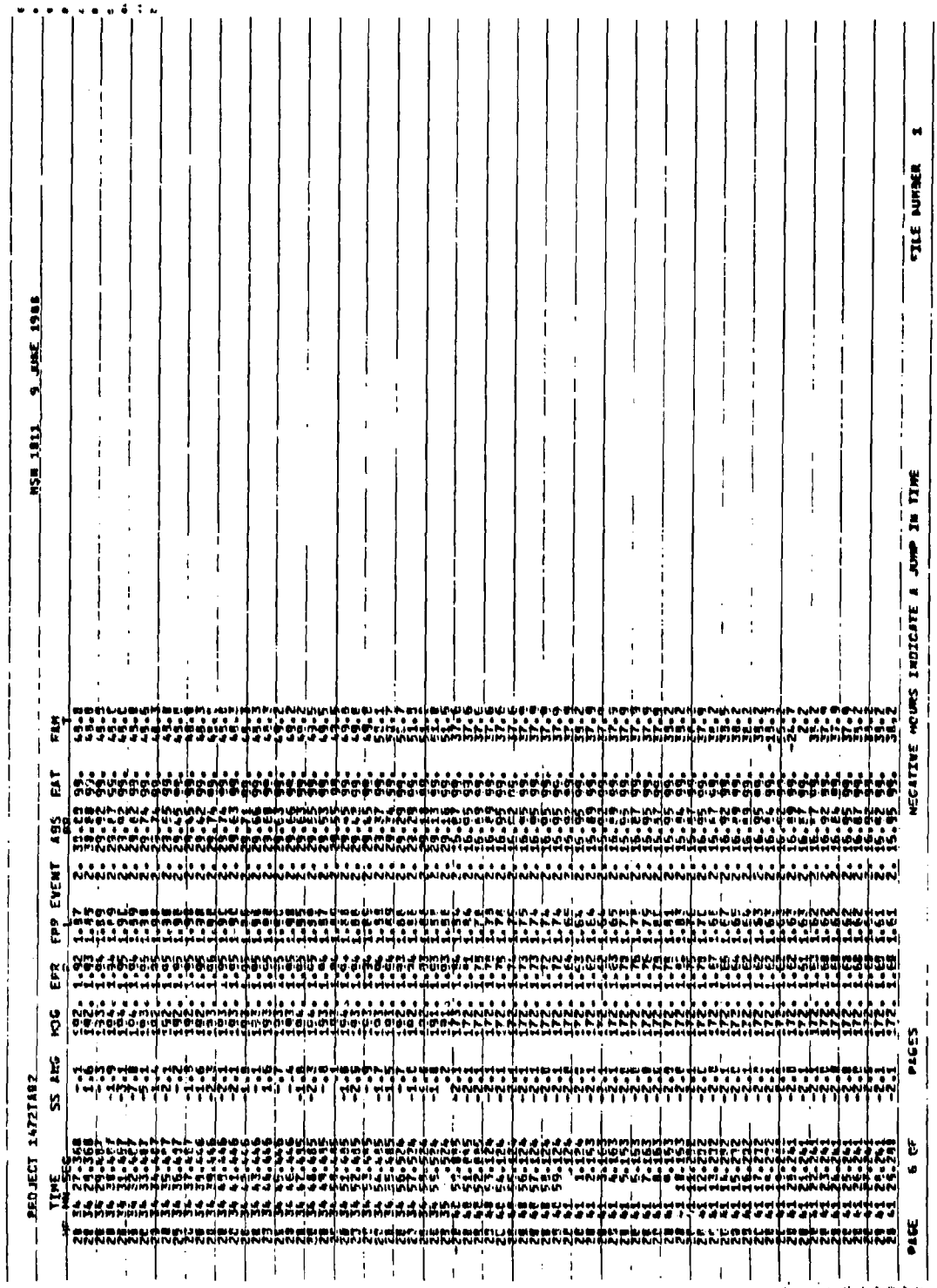


TABLE C-3 (Concluded). SAMPLE LISTING OF TYPICAL FLIGHT PARAMETER DATA

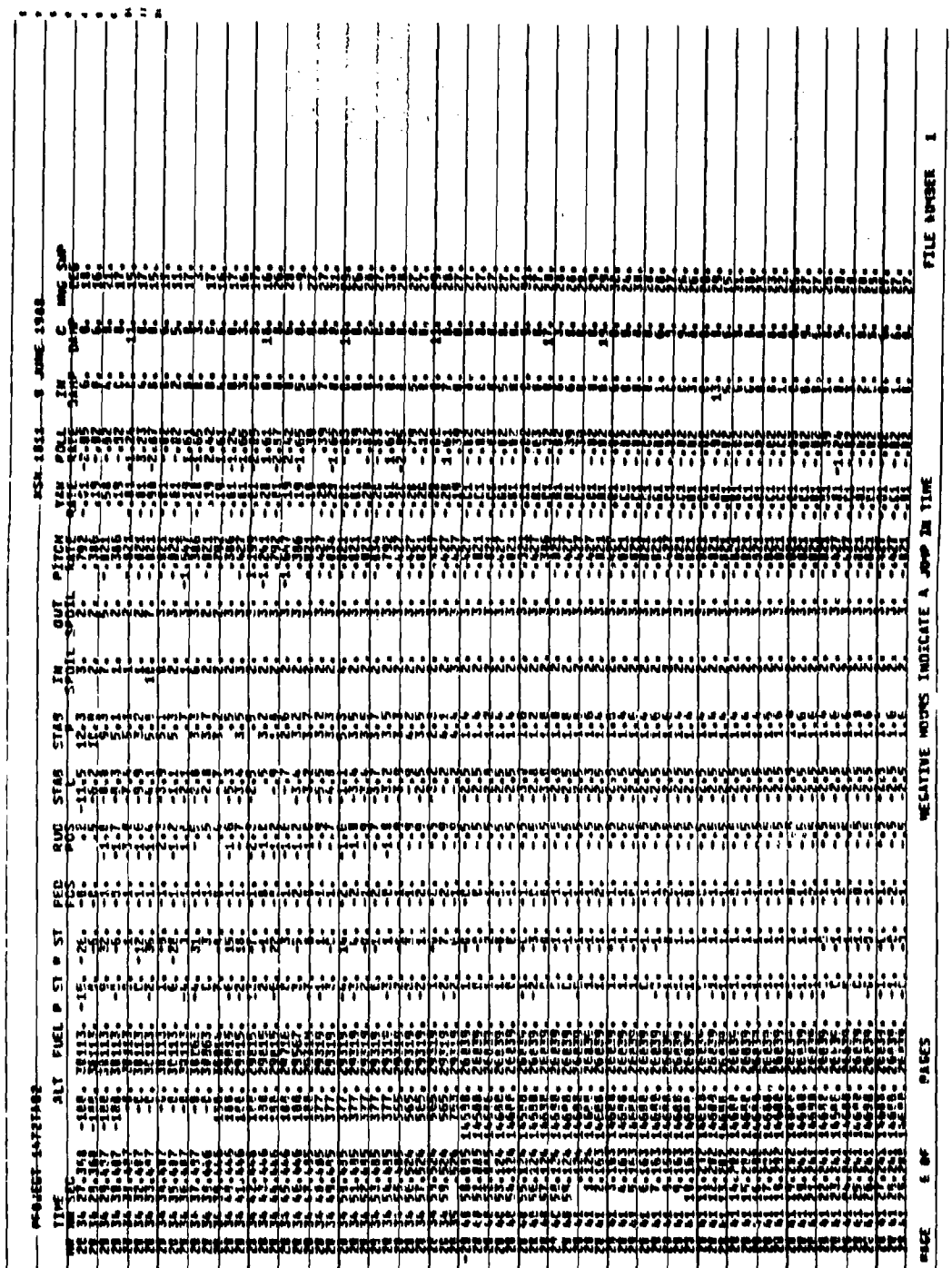
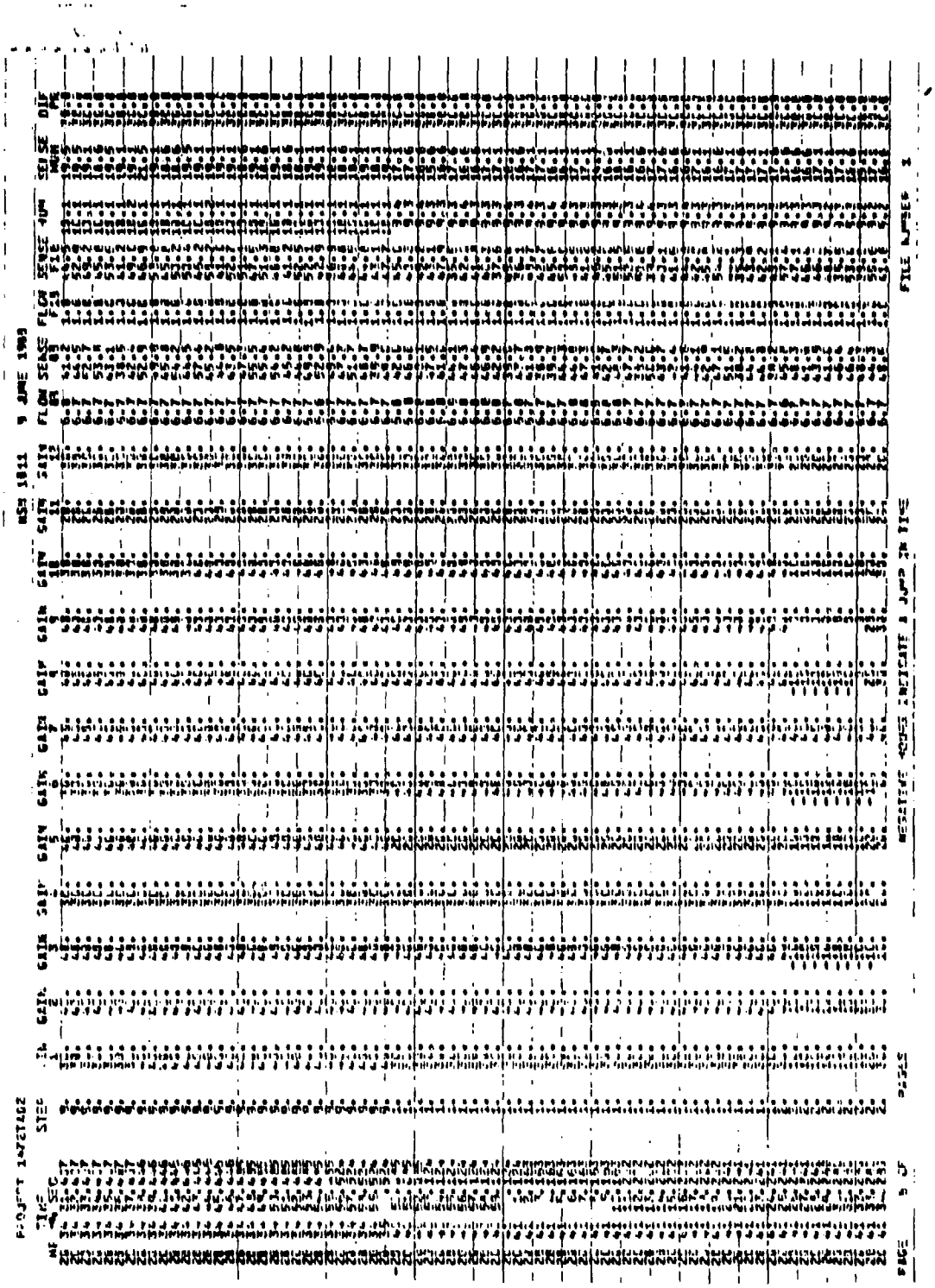


TABLE C-4. SAMPLE LISTING OF AUTOMATIC GAIN CONTROL AMPLIFIER GAIN STATUS



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2. L. L. Shaw, Full Scale Flight Evaluation of Suppression Concepts for Flow Induced Fluctuation Pressures in a Cavity, Flight Dynamics Laboratory, Wright-Patterson AFB OH, AFWAL-TM-81-69-FIBE, 1981.

*U.S.Government Printing Office: 1982 — 559-005/4061